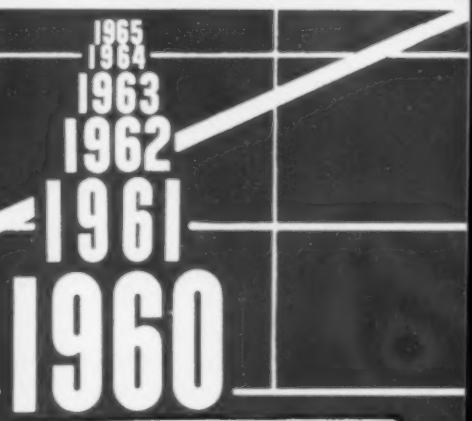
JUNE 1958

Brick & Clay Record

LEADING CLAY JOURNAL OF THE WORLD

BRICK • REFRACTORIES • STRUCTURAL TILE • SEWER PIPE • DRAIN TILE • TERRA COTTA • ROOFING TILE • CLAY AGGREGATE



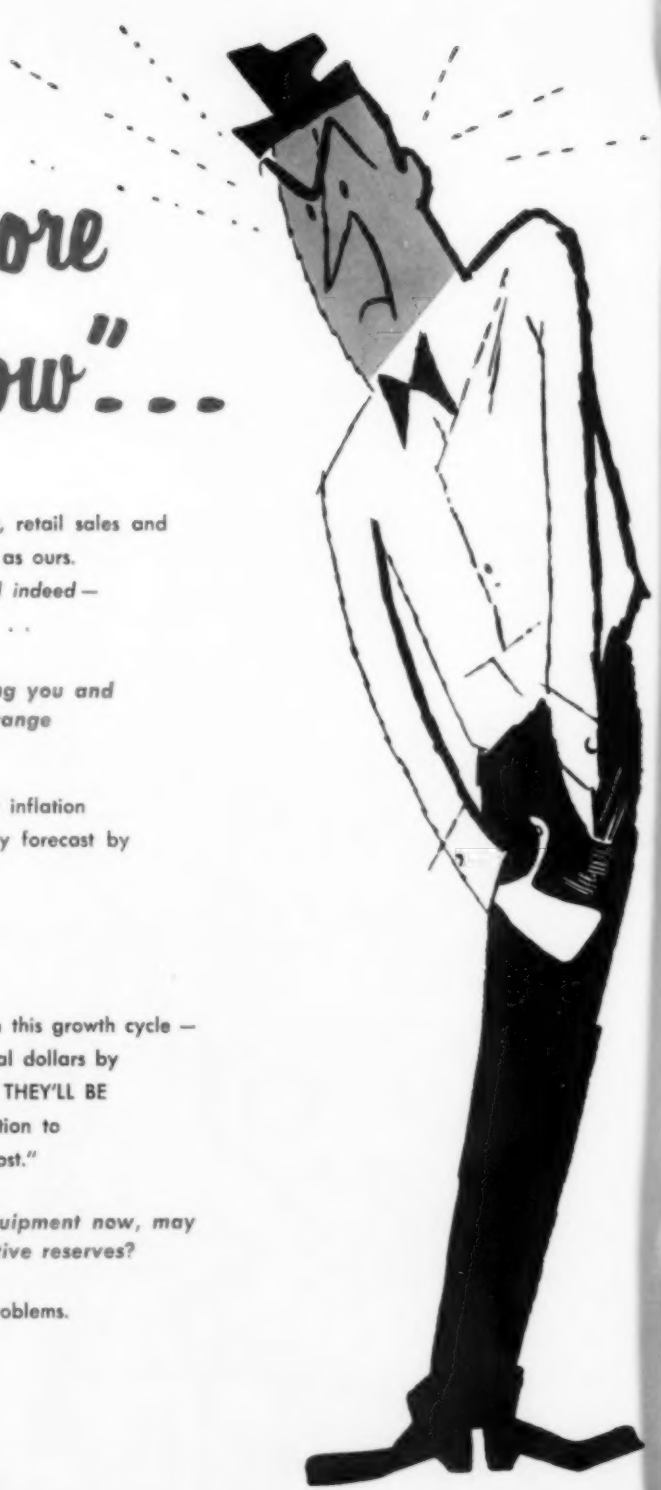
BUILD BEFORE THE BOOM

Indiana

Special section reports on a state that's busy building, re-building, modernizing and expanding, all for production of wide variety of products

. . . See Page 47

"We'll all pay more a year from now"...



Dips and declines in such fundamentals as employment, retail sales and construction can only be short range in a country such as ours. Basically America's free enterprise system is very *sound indeed* — as established by history and experience. That's why . . .

> *Business, industry and the public — meaning you and I — have an unfaltering faith in the long-range forward march of our country.*

With this growth, it is also agreed there will be further inflation . . . therefore, the higher costs and prices as generally forecast by most economists. Which means . . .

> *"Next year we'll certainly all pay more for most things we buy."*

So — doesn't it follow that anyone expecting to share in this growth cycle — *and who has buying power in any form* — will save real dollars by *buying now* . . . AT EQUIPMENT PRICES LOWER THAN THEY'LL BE IN 1959. You'll save cash, and you'll be in better position to "produce quality clay products at the lowest possible cost."

> *Don't you agree that money invested in equipment now, may well earn more than money held in less active reserves?*

Let's discuss prices, financial arrangements and other problems.

STEP AHEAD WITH BONNOT

Rugged Machines for Constant Low Cost Operation—BONNOT'S the Buy

The BONNOT Co.

CANTON 2, OHIO

CRUSHERS	CUTTERS	AUGER MACHINES
HAMMER MILLS	REPRESSES	VACUUM MACHINES
DRY PANS	DIES	SPECIAL EXTRUDERS
WET PANS	MIXERS	PUG MILLS
GRINDERS	SPECIAL MACHINES TO ORDER	
FEEDERS	DIRECT FOUNDRY SERVICE	

Ceramic Glazing

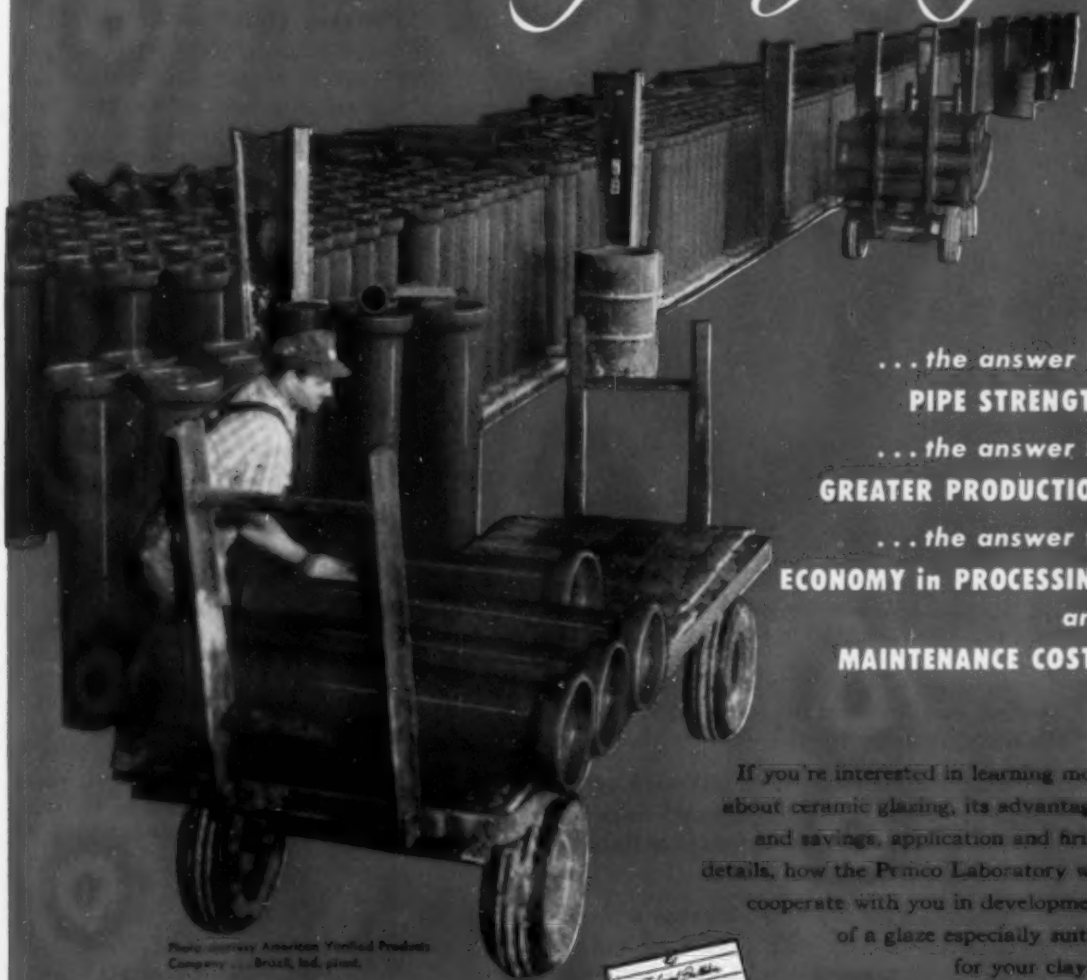
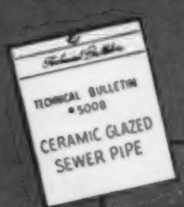


Photo courtesy American Vitrified Products Company . . . Bristol, Ind. plant.

. . . the answer to
PIPE STRENGTH
. . . the answer to
GREATER PRODUCTION
. . . the answer to
ECONOMY in PROCESSING
and
MAINTENANCE COSTS

If you're interested in learning more about ceramic glazing, its advantages and savings, application and firing details, how the Pemco Laboratory will cooperate with you in development of a glaze especially suited for your clay—write for Bulletin 5004.



PEMCO corporation

BALTIMORE 24, MARYLAND

World's Largest Supplier of Glazes to the Ceramic Industry

This bulletin explains the importance of using a glaze especially suited for specific clay characteristics. It is in this area that Pemco is most able to help you—to make sure that, with the proper glaze, you get all the advantages of ceramic glazing.

"Brick & Clay Record is published monthly by Industrial Publications, Inc., 5 S. Wabash, Chicago 3, Ill. Subscription price: U. S. A. and Canada, $5.00 per year, three years, $10.00; Foreign subscription price: $7.00 per year; three years, $15.00. Vol. 132, No. 6. Entered as Second Class Matter January 2, 1911, at the Post Office at Chicago, Ill., under the Act of March 3, 1879. Additional entry at Pontiac, Ill.

Bucyrus-Erie 22-Bs Move Clay Fast

This 22-B shovel loads clay into side-dump rail cars at the owner's mine in New York state.

Bucyrus-Erie 22-Bs offer sustained high output and low operating cost to keep clay moving profitably for you.

High output comes from fast work cycles. Balance between power and speed helps operators maintain a fast, effortless pace throughout an entire shift.

Operation costs are low because Bucyrus-Eries work steadily with little time out for maintenance. Arrangement of machinery provides easy accessibility to parts . . . simplifies lubrication, adjustment, and replacement.

Speed clay removal at your pit. Investigate ALL the profit-boosting features of a 22-B — or any other model in sizes ranging from ⅜ to 4-cu. yds. See your nearby Bucyrus-Erie distributor today.

541E58

BUCYRUS ERIE

A Familiar Sign at Scenes of Progress

BUCYRUS-ERIE COMPANY • SOUTH MILWAUKEE, WISCONSIN

LETTERS To the Editor

Wrong State

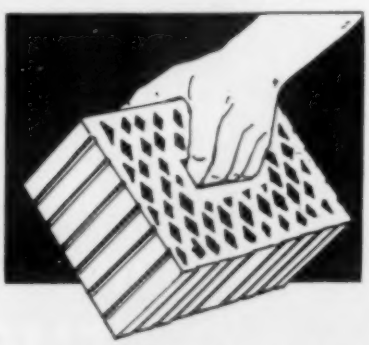
Editor, BRICK & CLAY RECORD—On page 54 of the April '58 issue appears an article (in the Yard Talk Column — Ed.) regarding a brick plant at El Dorado, Calif. We produce about 30M face brick per day, and always rated ourselves about third largest in the state, yet we have never heard of the above mentioned plant.

Lyman W. Lacy
Cannon & Co.
Sacramento, Calif.

Ed. Note: Cannon is still the third largest in California, so far as we know. Somehow we moved, in print anyhow, El Dorado from Arkansas to California.

Better Block

Editor, BRICK & CLAY RECORD — Your editorial report, "A Better Block" (April, page 49) I have read with great interest. I am in my first year here in the US, living in Chicago, and I was astonished to find use of such "small size" brick. So I don't wonder that the brick yards here are working only in the summertime. I feel that a good part of



the reason for this is the use of cement blocks that I see used on so many buildings.

The low point in the heavy ceramics industry is here. In Europe, we have beaten cement for many years now, and the cement block

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Brick & Clay Record

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Special section forecasts the coming boom's effect on our industry; analyzes factors involved, predicts industry trends.

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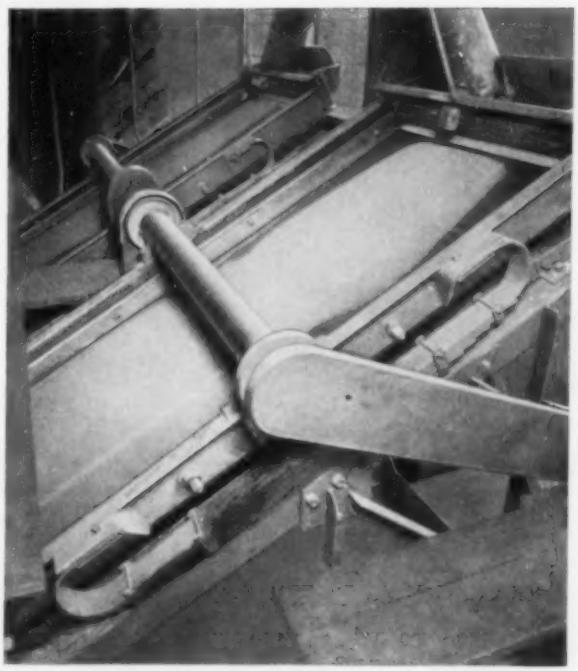
There's no finer way to

size fine materials

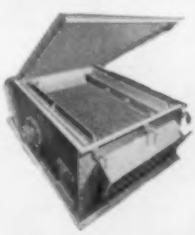


TWO LINK-BELT "UP" SCREENS accurately segregate oversize from raw and calcined fire clays at this firebrick plant.

Vigorous action of LINK-BELT "UP" vibrating screens sharply separates oversize from near mesh

WHEN small differences in material size make a big difference in product uniformity, put the problem up to Link-Belt "UP" vibrating screens. High-velocity action quickly stratifies the load . . . sizes closely through small screen openings without blinding.

High-intensity, circular motion is imparted by a simple, two-bearing vibrator that can be adjusted to the amplitude of highest effectiveness. Equally important, this mechanism is fully enclosed for protection from heat, moisture and abrasive dust.



FOR DUST-TIGHT OPERATION Link-Belt "UP" vibrating screens are available in semi- and totally-enclosed types to eliminate dirt nuisance and dust damage. See your nearest Link-Belt office—or write direct—for data Book 2377-A.

LINK-BELT

VIBRATING SCREENS

LINK-BELT COMPANY: Executive Offices, Prudential Plaza, Chicago 1. To Serve Industry There Are Link-Belt Plants and Sales Offices in All Principal Cities. Export Office, New York 7; Canada, Scarboro (Toronto 13); Australia, Marrickville (Sydney), N.S.W.; South Africa, Springs. Representatives Throughout the World. 14,522

KOEHRING WORK CAPACITY *in action...*

21.5 mph Cruiser® — One man controls all operations, one engine supplies all power for work and travel on Koehring 205 Cruiser crane. There's a full range of low working speeds up to 7 mph — plus travel speeds up to 21.5 mph. It has smooth torque-converter drive, power steering, 27½-foot turn radius, 30% gradability. Usefulness is unlimited in mines, pits, and quarries. 205 Cruiser lifts up to 15 tons — handles ½ to ¾-yard clamshell or dragline buckets on a wide work radius — converts to ½-yard shovel or hoe.

Swings a big bucket — Notice the size of this dragline, stripping a coal seam in an Eastern mine (below). It's the big Koehring 1205 — and handles 3 to 4-yard bucket, depending on weight of materials. Boom lengths: 60 to 170 feet. This big-capacity stripper also converts to 3-yard shovel. High-lift model has a 3-yard dipper on 40-foot shovel boom — or a 2½-yard dipper on 50-foot shovel boom.

Ship to shore — A pair of Koehring 405 clamshell cranes, mounted on a Great Lakes dredge — one of the world's largest — solved the problem of transferring sand from the ship's hold to shore. With this system, approximately 4,500 tons of sand are unloaded in 6 hours. Crane in foreground dumps into a Johnson Lo-Bin, mounted on flanged wheels. Lo-Bin travels along track, transports sand to a swinging, boom-type conveyor, which stockpiles it at dockside. On clamshell work, Koehring 405 handles 1 to 1½-yd. buckets. Check its other capacities in chart on opposite page.

KOEHRING DIVISION OF KOEHRING COMPANY, Milwaukee 16, Wis.

Here are some figures that will interest you:

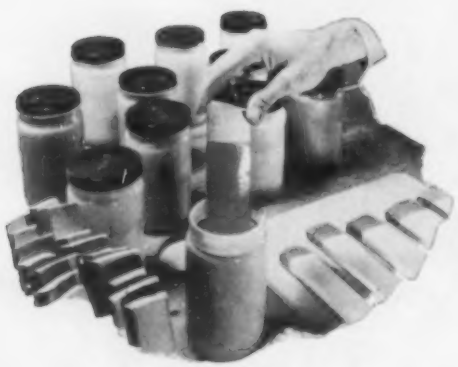
KOEHRING MODEL	SIZE DIPPER	LIFT CAPACITIES (Crawler ratings based on 75% of tipping load. Rubber-tired machines — 85% of tipping load.)	
205 CRAWLER	½-Yd.	20,000 lbs.	at 10-ft. radius
205 ON RUBBER	½-Yd.	30,000 lbs.	at 12-ft. radius
305 CRAWLER	¾-Yd.	30,000 lbs.	at 12-ft. radius
305 ON RUBBER	¾-Yd.	30,000 lbs.	at 10-ft. radius
405 CRAWLER	1-Yd.	40,000 lbs.	at 12-ft. radius
445 ON RUBBER	(Crane only)	90,000 lbs.	at 15 ft. radius
605 CRAWLER	1½-Yds.	72,300 lbs.	at 12-ft. radius
805 CRAWLER	2-Yds.	104,200 lbs.	at 12-ft. radius
1205 CRAWLER	3-Yds.	190,000 lbs.	at 12-ft. radius

Want more information? See Koehring distributor.

In heavy rock — Owner of this Southern mine needed a heavy-duty shovel to strip rocky overburden — picked a Koehring ¾-yard 305 for the job. Its powerful digging crowd, and rugged strength of deep-section boom and dual dipper sticks, proved more than a match for the heavy rock. Yet, in work like this, 90% power-assist on main drum clutches gives operator a light lever-pull and sensitive "feel" of load. Power, strength, stability as a shovel increase the 305's work capacity with all attachments. For proof, check its lift ratings (at left).

FRIT or SALT?

which glaze is best for your products . . . your markets?



THE GLAZING of clay pipe is an old story at Ferro—*salt* glazing since the early thirties; *frit* glazing since the very beginning of the process in 1943-44. In fact, 90% of the frit glazing done to date in this field has been with Ferro Frits especially developed or adapted for such applications.

Frit glazing does offer advantages—particularly so since Ferro has helped its customers greatly reduce the cost of the process. But many factors should be weighed by any producer considering making a change to frit. These include his clay bodies, his facilities, his products and his markets.

To help manufacturers evaluate the new process, Ferro offers a complete technical service. Ferro technicians will find the best frit glaze for your clay bodies, develop the desired uniform color, work out the lowest cost slip formulations, tell you what you need to adapt your present equipment for such glazing, give you a good line on relative costs. With this information you can work out the rest of the equation and *know* that your decision, whatever it is, is based on the most authentic data available.

Why guess when you can have the facts? Contact your Ferro Representative — or write, wire or phone us *here at headquarters!*

FERRO

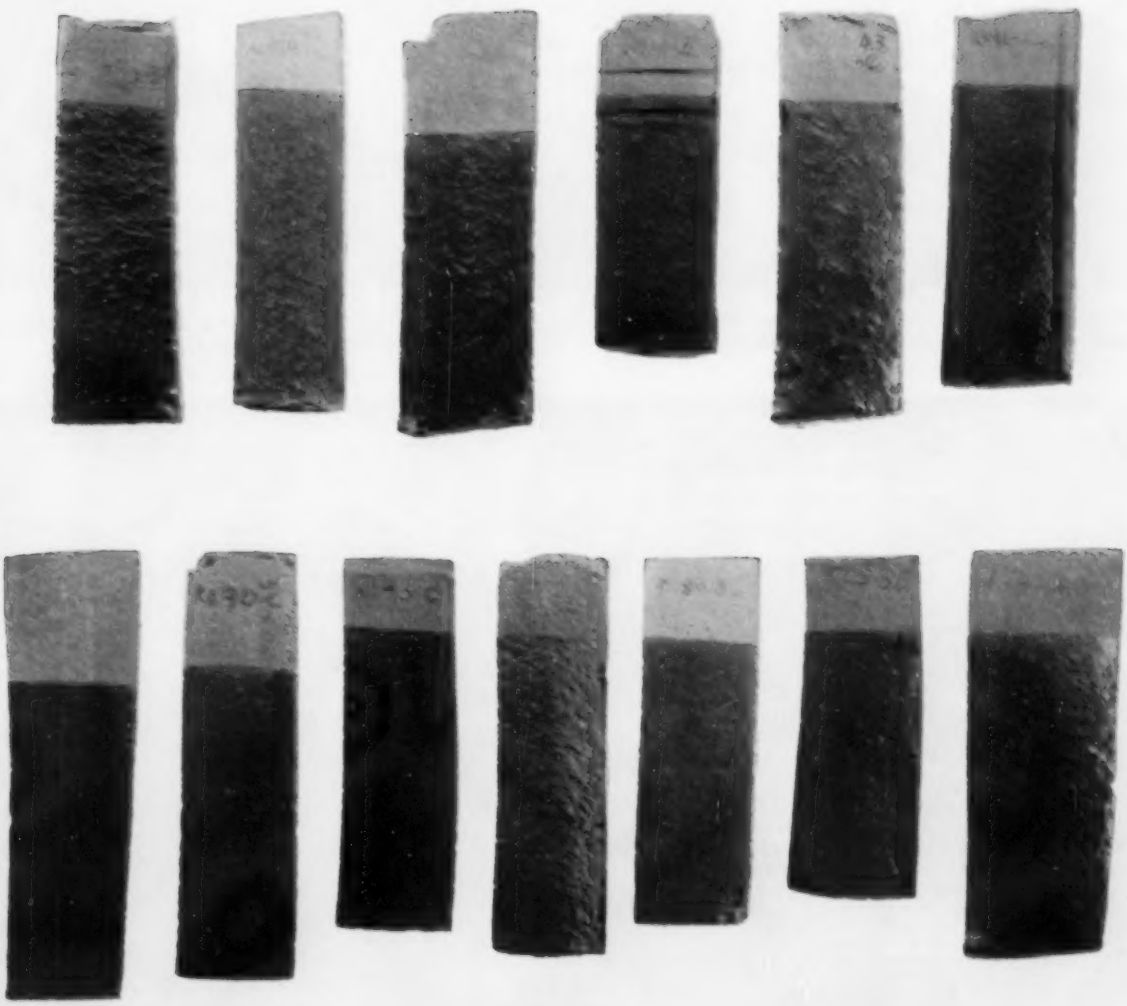
FERRO CORPORATION

4150 EAST 56TH STREET · CLEVELAND 5, OHIO

NASHVILLE 11, TENN. · LOS ANGELES 22, CALIF.

OAKVILLE, ONTARIO (CANADA)

Come to headquarters for your answers on glazing sewer pipe!



Samples shown are from 13 companies currently "thinking about" frit glazing of their products

Freeport Brick Co. Plant, Freeport, Pennsylvania. Dimensions: 640'x 100'x 22'.
Architects, Engineers and General Contractor: Freeport Brick Co.

Sub-Contractor for Roofing and Siding: Callery Industries, Inc.
130 Hillvue Lane, Pittsburgh 37, Pennsylvania.

A KAISER ALUMINUM ROOFING & SIDING SHEET TO SUIT YOUR NEEDS

Ribbed Siding

Thickness: 0.032" and 0.040"
Length: 5' to 22' in 6" increments and 22'-5"
Width: 41⅛" overall
Rib Configuration: 1" deep — 4" and 8" pitch
Finish: Stucco Embossed

Also available with rib configuration 1½" deep — 5.33" pitch. Sheet thickness 0.032". Lengths 5' to 12' in 6" increments. Other specifications on request.

V-Beam Roofing & Siding

Thickness: 0.040" and 0.051"
Length: 5' to 22' in 6" increments and 22'-5"
Width: 41⅛" overall
V-Configuration: 1¾" deep — 4⅜" pitch
Finish: Stucco Embossed

Industrial Corrugated Roofing & Siding

Thickness: 0.024" and 0.032"
Length: 5' to 12' in 6" increments
Siding Width: 33⅛" and 47⅛" overall
Roofing Width: 35" and 48⅜" overall
Corrugation: ⅞" deep — 2.67" pitch
Finish: Plain Mill and Stucco Embossed

Flat Sheet Roofing & Siding

Thickness: 0.024" and 0.032"
Finish: Plain Mill and Stucco Embossed

Full specifications on request.

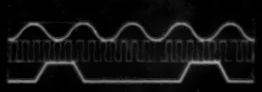
NOTE: Kaiser Aluminum also offers a complete selection of flashing sheet, formed flashing, closures and other accessory building items.

NEW! INSULATED ALUMINUM "SANDWICH" WALLS

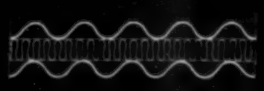
Choose From These and Other Sandwich Combinations

Inner Skin: 0.024" Industrial Corrugated Siding
Outer Skin: 0.032" Ribbed Siding—5.33" pitch

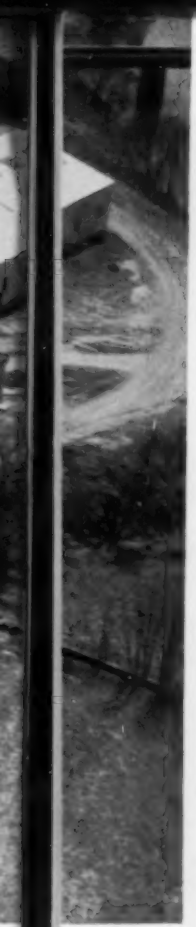
Inner Skin: 0.024" Industrial Corrugated Siding
Outer Skin: 0.032" Ribbed Siding — 4" pitch



Inner Skin: 0.024" Industrial Corrugated Siding
Outer Skin: 0.032" Ribbed Siding — 8" pitch



Inner Skin: 0.024" Industrial Corrugated Siding
Outer Skin: 0.032" Industrial Corrugated Siding



LONGEST LIFE LOW INITIAL COST!

Freeport Brick Company—one of today's foremost manufacturers of ladle brick—chooses corrosion-resistant Kaiser Aluminum roofing and siding for their new 64,000 square foot brick plant

The Pittsburgh area's corrosive climate can be murder on many building materials — and the Freeport Brick Company knew it.

So, before starting work on their new brick plant in Freeport, Pennsylvania, company president Francis H. Laube made an intensive study of all available materials — including aluminum and specially treated steel.

His purpose: to determine just which would best combine the benefit of minimum long range maintenance with low *initial* cost.

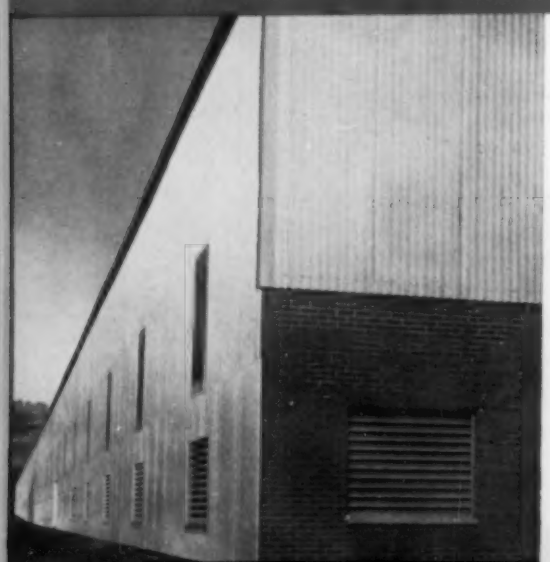
Result? Freeport specified corrosion-resistant sheets of Kaiser Aluminum—and is now looking forward to many years of economical service.

And Freeport got a bonus. Kaiser Aluminum's light weight — plus special design features — made big *installation* savings possible, too!

For example, sub-contractor David Starr of Callery Industries, Inc., a Kaiser Aluminum franchised applicator-erector, has this to say about their roofing work:

"We were very pleased with the way lightweight Kaiser Aluminum 48" corrugated sheets handled. Because of their extra width, fewer sheets were needed and there was considerably less waste from lapping. In fact, the entire 64,000 square feet were covered in only 15 days.

"For our money, nothing beats the benefits of Kaiser Aluminum industrial building products."



Attractive combinations of brick and functional Kaiser Aluminum box ribbed siding were employed for three walls of the plant. The fourth was hung exclusively in aluminum to allow for easy future expansion.

Kaiser Aluminum produces a full line of building products ideally suited for the brick and clay industry.

Weighing two-thirds less than similar steel materials, they speed construction and reduce the need for heavy, expensive supporting structurals. Their unique combination of strength and corrosion resistance promises a lifetime of handsome service with little necessity for painting or other care. And their distinctive embossing adds to the appearance of the building plus giving greater glare diffusion.

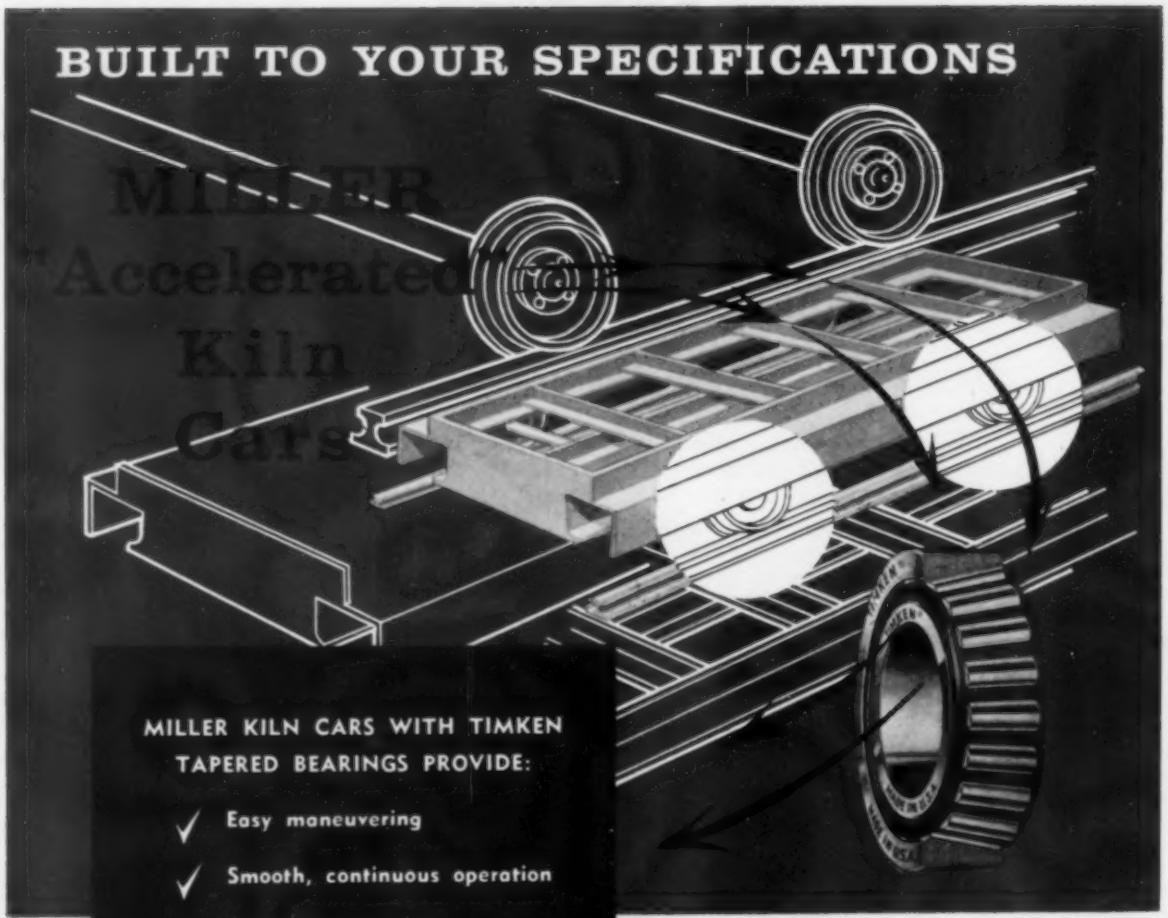
For A.I.A. File and full information, contact the Kaiser Aluminum sales office listed in your telephone directory. Or write Kaiser Aluminum & Chemical Sales, Inc., *General Sales Office,* Palmolive Bldg., Chicago 11, Ill.; *Executive Office,* Kaiser Bldg., Oakland 12, Calif.

KAISER ALUMINUM

THE BRIGHT STAR OF METALS

See "MAVERICK" Sunday evenings, ABC-TV Network. Consult your local TV listing.

BUILT TO YOUR SPECIFICATIONS



MILLER KILN CARS WITH TIMKEN TAPERED BEARINGS PROVIDE:

- ✓ Easy maneuvering
- ✓ Smooth, continuous operation
- ✓ Trouble-free service
- ✓ Anti-friction performance

Whatever your kiln car needs, regardless of who made your tunnel kiln, Miller can furnish any type Kiln or dryer car according to your specifications. And, with Timken Tapered Roller Bearings, you get years of smooth, anti-friction performance.

Easily moved by one man, when fully loaded, Miller built Kiln cars have "accelerated" maneuverability . . . really measure up to your demands.

Have Miller engineers analyze your kiln car needs. Complete information and prices submitted without obligation.

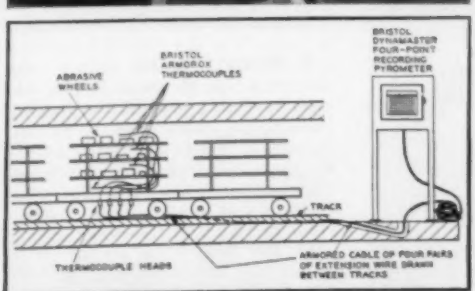
Miller Equipment Company

P. O. Box 586 • Phone ME 3-3541 • Salisbury, N. C.

Pacific Agent:
WALTER C. STOLL & SONS
5028 Alhambra Avenue
Los Angeles 32, California

Southwestern Agent:
A. K. MOULTON ASSOCIATES
138 Harriet Drive
San Antonio 12, Texas

Bristol Dynamaster* Traveling Tunnel Kiln Pyrometer measures actual firing temperatures of Bay State Abrasive Wheels. Test car, with "Armorox" thermocouples installed, is shown below at left.


BRISTOL DYNAMASTER FOUR-POINT RECORDING PYROMETER
BRISTOL ARMOROX THERMOCOUPLES
ABRASIVE WHEELS
TRACK
THERMOCOUPLE HEADS
ARMORED CABLE OF FOUR PAIRS OF EXTENSION WIRE DRAWN BETWEEN TRACKS

Firing temperatures measured by "Armorox" thermocouples mounted on test kiln car (photo above) are continuously recorded on Dynamaster Potentiometer Pyrometer as shown schematically.

NEW TEST PYROMETER

steps up tunnel-kiln firing quality

Adjusting the actual firing temperatures on abrasive-wheel-loaded cars running through their 250-foot-long tunnel kilns at temperatures to 2300°F was a big problem for Bay State Abrasive Products Company, Westboro, Mass.

Bristol and Bay State engineers solved this problem with a unique traveling pyrometer installation shown schematically below. A test car—in all respects a production car—is loaded in the normal way with abrasive wheels to be fired. New Bristol "Armorox" metal-sheathed ceramic-insulated thermocouples are mounted at strategic locations on the car. These transmit their readings to a 4-point Bristol Electronic Dynamaster* recorder through a pencil-thin extension-wire cable that's drawn between the tracks as the car travels. Result: Bay State gets an accurate temperature profile for each deck in the car throughout the length of the kiln. Only a few trips a year are needed to set up the burners. *And Bay State reports that one trip through the kiln can more than save them the cost of the thermocouples.*

Perhaps Bristol pyrometric know-how can help you with your difficult firing problems. Please feel free to call on us. And find out, too, about the complete line of Bristol thermocouples and pyrometer accessories to fit all standard installations. Write the Bristol Company, 170 Bristol Road, Waterbury 20, Conn. B-14

*T. M. Reg. U. S. Pat. Off.

BRISTOL *TRAIL-BLAZERS IN PROCESS AUTOMATION*

AUTOMATIC CONTROLLING, RECORDING AND TELEMETERING INSTRUMENTS

MATERIALS EQUIPMENT SERVICES

CONVEYORS—A large stock plus standardized components allow you flexibility in your conveyor operations with use of Barber-Greene conveyor components. Trouble-free operation results from factory aligned and adjusted drives and terminals. Barber-Greene Co., Aurora, Ill.

100/Circle on Reader's Service Coupon

CLAY STORAGE — Varco clay storage buildings can help cut your production costs by insuring a sufficient supply of workable clay. The structure can be erected on your foundation for a cost as low as $1 per ton of storage space. R. G. Varner Steel Products Co., Pine Bluff, Ark.

101/Circle on Reader's Service Coupon

TRACTOR SHOVEL—Yale has designed this new unit as a new concept in material handling. Included is 45 deg. ground-level bucket tip-back; quick acceleration; 6' dumping clearance; speeded cycle operation. Yale & Towne Mfg. Co., Philadelphia, Pa.

102/Circle on Reader's Service Coupon

PIPE DRYING—Since each clay used has individual characteristics, affecting the drying operation, Robinson studies clay characteristics when designing dryer operation. This study can help produce better quality ware more economically. Robinson Ventilating Co., Zelienople, Pa.

103/Circle on Reader's Service Coupon

OPACIFIERS — Consistent uniformity of their opacifiers, in any desired quantity, is stressed by TAM. The complete line includes Superpax A, Superpax, Opax, Opax S, Treopax, Zircopax, and Double Silicates. Titanium Alloy Mfg. Co., New York City.

104/Circle on Reader's Service Coupon

MANY UNITS—The Vibrapac is versatile enough to make literally dozens of different types of units, so that the blockmaker can supply all units used in building. Plain pallet stripper means that only one set of Plain Pallets is required for all sizes of units. Besser Co., Alpena, Mich.

105/Circle on Reader's Service Coupon

CROMITE—Foote Chromite gives "natural" coloring in bluish-gray brick. When added to buff-burning clays, produces attractive bluish-grey shades that match closely many colors of limestone. Foote Mineral Co., Philadelphia 44, Pa.

106/Circle on Reader's Service Coupon

PUGMILL KNIVES — Mixmax pugmill knives are custom built for each installation. For building brick and tile, refractories, sewer pipe, drain tile. Straight Engineering Co., Adel, Iowa.

107/Circle on Reader's Service Coupon

FREEPORT BRICK—Buildings at this new plant are of corrosion-resistant Kaiser aluminum. Advantages Freeport found included installation savings because of lightweight and special design features; plant should have long life at a low initial cost. Kaiser Aluminum, Chicago, Ill., or Oakland, Calif.

108/Circle on Reader's Service Coupon

PRESSING — Lassman offers a press that uses a proven method for forming ware from dry, granular material in a press that operates smoothly, without leaks, and with minimum maintenance. Full details in Bulletin BL-158 from Benjamin Lassman & Son, Route 8, Glenshaw, Pa.

109/Circle on Reader's Service Coupon

STRAPPING—Denver Brick & Pipe Co. is using the Acme powered brick strapping station. The set-up uses power equipment to minimize manual labor and speed output. Included is a feed device that automatically supplies paper corner protectors. Also used is a full-powered A4 Steelstrapper; new strapping dispenser; power strap feed track. Acme Steel Strapping, Chicago 27, Ill.

110/Circle on Reader's Service Coupon

TAILORED MACHINERY—Bonnot builds a complete line of clay working machinery that is precision engineered to individual plant requirements. Because of possible variations in raw materials and products, Bonnot has a Research-Development laboratory to help solve the individual plant's problems. Bonnot Co., Canton, Ohio.

111/Circle on Reader's Service Coupon

EROSION RESISTANT — Fans made by Westinghouse are designed to handle abrasive gases at elevated temperatures and high pressures. Features include ribbed blade liners for severe abrasive service; flat blade liners to prevent material build-up; flat housing and scroll liners. Open wheel with radial tapered blades repeatedly provides low stress and long rotor life. Sturtevant Div., Westinghouse Electric Corp., Boston 36, Mass.

112/Circle on Reader's Service Coupon

SHAKER CONVEYORS — Syntron shaker conveyors can handle damp or dry, hot, cold or corrosive materials at high rates. The conveyors are available in lengths and widths to meet most operating requirements. Syntron Co., Homer City, Pa.

113/Circle on Reader's Service Coupon

FLAT FLAME—Burners by North American place the flame close to the work without risk of hot spots or flame impingement. Heating is reported to be uniform over a large area. North American Mfg. Co., Cleveland 5, Ohio.

114/Circle on Reader's Service Coupon

LUBRICATION—Belco #5016 grease lubricates kiln-car bearings at temperatures up to 1200F; guaranteed not to carbonize, does not harden or form decomposition products, cuts down pusher ram pressures; lasts three months between greasings. Bel-Ray Co., Madison, N. J.

115/Circle on Reader's Service Coupon

GLAZING—Pemco reports that their ceramic glazing method helps in longer kiln life and lower fuel costs. Reduction of flame temperature needed lengthens the life of kiln refractories, lowers fuel costs, increases kiln capacity in pipe manufacture. Pemco Corp., Baltimore 24, Md.

116/Circle on Reader's Service Coupon

FAST CONSTRUCTION—Is possible with lower cost Swiss-Lok tubular building frames. Tubular members are said to save 1/3 steel weight without loss of strength; reduced crane service is possible; no welding, cutting, bolting or riveting at the site. Swiss Fabricating Co., Pittsburgh 2, Pa.

117/Circle on Reader's Service Coupon

SCREW CONVEYOR—Drive made by Dodge is entirely new and different, company says. Complete package drive includes high-efficiency reducer, quick-removable driving shaft, external packing gland. Dodge Mfg. Co., Mishawka, Ind.

118/Circle on Reader's Service Coupon

OCTOPUS—The Pearne & Lacy Octopus has been specifically designed to allow for completely automatic operation in the handling and finishing of large sewer pipe. The automatic operating cycle finishes both the spigot and bell ends, turns the pipe over, places it on the pallet boards. Pearne & Lacy Machine Co., Los Angeles 54, Calif.

119/Circle on Reader's Service Coupon

SUPERMATIC—Features of this masonry saw include heavy duty cutting head powered by 2 HP GE motor; cutting head that can raise or lower from 0" to 17" without turning off the motor; cutting at any height with no adjustment to make. Clipper Mfg. Co., Kansas City 8, Mo.

120/Circle on Reader's Service Coupon

PIPE JOINTS—A 2-pass Lanly conveyorized oven cures plastisol joints on vitrified pipe. Plastic material is applied to preheated pipe after it leaves the first pass of the oven and is cured in the second pass. Lanly Co., Cleveland 15, Ohio.

121/Circle on Reader's Service Coupon

STEP BEARING—Trouble can slow down production. Toronto thrust bearings can cure the trouble and will fit any pan or grinder. Types include standard step bearing, self-aligning roller, and double-bearing toe. Toronto Foundry & Machine Co., Toronto, Ohio.

122/Circle on Reader's Service Coupon

CAR TOP TILE—Broken tile can be repaired with new Super 3000, press together, let mortar set, and the tile are ready for use again, at a cost of 2-¾c for the repair job. Refractory & Insulation Corp., New York City 5.

123/Circle on Reader's Service Coupon

"Please say I saw it in B&CR"

TURBINE-MIXER—Test records in the refractory industry show that the Smith Turbine-type Mixer can give 400% faster performance. Mixing time averaged over four times faster on a variety of mixes; gave more uniform blending; faster means of coating; no excessive breakdown of particle size; balling tendencies were reduced. T. L. Smith Co., Milwaukee, Wis.

124/Circle on Reader's Service Coupon

SHIPPING LOSSES—Can be cut with use of Bricarton, Corrugated paper brick cartons eliminate call backs and shipping losses, cut handling costs, help in palletizing, cushion brick to protect against damage. Available in all sizes for brick, tile, terra cotta, refractory brick. Canton Corrugated Box Co., Canton 5, Ohio.

125/Circle on Reader's Service Coupon

CAR BLOCKS—Remmey SKC car blocks are reported to give triple the life of conventional blocks. One plant has had them in continuous use for three years and the blocks show little sign of wear. SKC blocks have an extremely low coefficient of thermal expansion. Richard C. Remmey, Son Co., Philadelphia, 37.

126/Circle on Reader's Service Coupon

DUMPTORS—Capacity of wide-flared 6-yard body, speed and maneuverability, gravity-dump that never wears out are among the reasons the Dumptor is used so widely in pit hauling. Koehring Co., Milwaukee 16, Wis.

127/Circle on Reader's Service Coupon

FANS — Frequently heard by brick plant operators, "Robinson fan equipment solved our enlargement problems for economical production of first class brick." This is due to the study of air requirements, selection of right equipment that meets the demand of the work to be done. Robinson Ventilating Co., Zelienople, Pa.

128/Circle on Reader's Service Coupon

TUNNEL KILN — Output at three Glen-Gery plants, using Harrop tunnels, is running 31,800 brick more than design proposals. Same kilns are giving a better than 97% recovery of first grade brick. Harrop Ceramic Service Co., Columbus, Ohio.

129/Circle on Reader's Service Coupon

FULL CONTROL — Automatic control of temperature by Bristol in every phase of firing can help you get better, more uniform product; helps to keep more constant quality in colored product. Use of controls can also cut down on manpower in supervision work. Bristol Co., Waterbury, Conn.

130/Circle on Reader's Service Coupon

TERRALOADER — New unit by Case has four-wheel drive in loader that can be equipped with buckets from 1⅜ to 2¾ yards. Features include 40 deg. tipback; 11,000 lbs. breakout; 5,500 lbs. carrying capacity. J. I. Case Co., Racine, Wis.

131/Circle on Reader's Service Coupon

GREEN STRENGTH—Can be increased with use of Additive-A. In addition to greater green strength, this new product can permit reduction of tempering water; cut dryer loss; reduce lamination; improve workability; extend auger life; help control scumming, manufacturer reports. Kimberly-Clark Corp., Neenah, Wis.

132/Circle on Reader's Service Coupon

HARDFACING—Dixie Fire Brick Co., of Kimberly, Ala., recently set up the following hardfacing program with help from Stoody Co.: 60" muller tires, 3" thick with a 12" face—finished with a pass of Stoody 21; augers, shredders, sealing dies, spacing rings, and paddles of the extruding machine—with other Stoody alloys. Stoody Co., 11937 E. Slauson Ave., Whittier, Calif.

133/Circle on Reader's Service Coupon

OHIO KILNS — Have recently been installed at many plants, including Bowerston Shale, Orrville Tile, Mejenica Tile and Owensboro B&T. Capacities from 10,000 to 25,000 brick per day; needs minimum of plant changeover for installations; lower cost kilns for smaller plants. Ohio Kilns, Granville, Ohio.

134/Circle on Reader's Service Coupon

How to Get Rush Information

If you want further information or literature describing the products in this special feature, just use the handy card you will find on page 18. Our Reader's Service Dept. will see that you obtain the requested information as quickly as possible.

BRICK MACHINE—And cutter combination by Chambers was engineered to work together for better production. The 12AC brick machine, up to 300 hp, has 19¾" auger, fed by 21" augers in vacuum case; 12' pub mill tub. The 30 series cutter is available in four models, each available in lengths up to five 12" cuts. Chambers Bros., Philadelphia, Pa.

135/Circle on Reader's Service Coupon

SCREEN TRANSFORMER — An Ohio refractories plant has put screening on a production basis with screen heating transformers, resulting in less man hours spent cleaning blinded screens, extending screen cloth life when you do away with pounding, brushing, flame heating, bouncing chains, and less recirculation of fines and wasted grinding time. Screen Heating Transformers, Inc., Massillon 81, Ohio.

136/Circle on Reader's Service Coupon

ONE SHOVEL—at an Ohio plant handles all pit work for making 70 million brick a year; two round-the-clock plants depend on the shovel's output. User is said to like the reserve power and strength; self-cleaning crawlers and other features of his Marion 1-yard shovel. Marion Power Shovel Co., Marion, Ohio.

137/Circle on Reader's Service Coupon

CAR TOPS—By Paco are reported to last twice as long, cutting replacement costs up to 50%. Maker says they help you get better heat distribution, more uniform ware, at lower cost. North State Pyrophyllite Co., Greensboro, N. C.

138/Circle on Reader's Service Coupon

BUFFALO FANS—CR radial blade fan was designed for rugged durability, with heavy gauge construction; balanced wheels and shaft; high volume operation may mean that you can use smaller size fan, lowering your initial cost. Buffalo Forge Co., Buffalo, N. Y.

139/Circle on Reader's Service Coupon

BLACK CORING REDUCED—Up to 50% reduction, according to various brick companies, with use of Brickaid. Product also cuts dryer loss 70% or more; decreases firing time; increases green strength, has other benefits. Spencer Chemical Co., Kansas City, Mo.

140/Circle on Reader's Service Coupon

BRICK FORKS — This was said about Bickerstaff Brick forks: ". . . We find a saving of several thousand dollars because we do not require a large inventory of wood pallets . . . using a side shifter, we can make a better load on the truck for shipping. We can stack the brick tighter, and in better condition. . . ." Bickerstaff, Inc., Columbus, Ga.

141/Circle on Reader's Service Coupon

384 GRINDER—American grinder has been designed for a ton a minute capacity, with all clay materials; can handle wet or dry material; has no screen plates to clog. American Clay Machinery Co., Marion, Ohio.

142/Circle on Reader's Service Coupon

THAYER SCALES — Give continuous formulating with accuracy within ½%. Control which formerly required use of batch system can now be had with use of this continuous weighing system. Plate leverage system is guaranteed accurate for the life of the scale; has no knife-edge pivots. Thayer Scale Corp., Pembroke, Mass.

143/Circle on Reader's Service Coupon

ROCKFACER — Converts culls into premium brick. Rockfacer also reports that the unit transforms 2,000 second-grade bricks per hour into number 1 rockface brick. Is stated to pay for itself in 90 days or less, eliminating inaccurate hammer and chisel methods. Rockfacer Co., Mesquite, Texas.

144/Circle on Reader's Service Coupon

LW PLANTS — Complete lightweight aggregate plants or single units can be built for you by McNally-Pittsburg. Company has rotary kilns, coolers, conveyors, roll or jaw crushers, much other equipment. McNally-Pittsburg, Pittsburg, Kansas.

145/Circle on Reader's Service Coupon

UNIFORMITY

Ultrox...

Zirconium Opacifiers

FOR ALL CERAMIC GLAZES

■ From mine to kiln, batch to batch, the big word behind Ultrox Zirconium Opacifiers is uniformity. Assuring Ultrox uniformity are control tests far more demanding than actual conditions of use. Here's how M&T spells uniformity . . . . in every bag, every drum of Ultrox or Ultrox 500W:

- **Selected ores are continually analyzed both at the mine and at M&T processing plants to set the course for highest quality.**
- **Processing equipment is automated to safeguard against human error.**
- **Constant checking controls chemical analysis and assures uniform particle size.**
- **Fired glaze tests are made to appraise color and opacity —before any lot is approved for shipment.**

Write for useful literature or an assist in solving your brick or other ceramic glaze problem.

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Desired capacity of plant per day is_____.

Shale ☐ Clay ☐

Name_____Title_____

Company_____

City and State_____

NEW EQUIPMENT

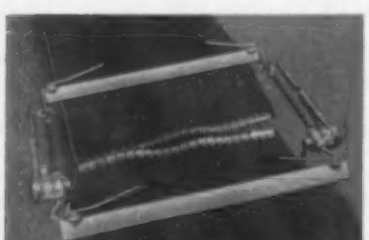
Fullpak Scraper

LeTourneau-Westinghouse has announced the addition to their line of an 11.5 cu. yd. scraper for use with tractors of 70 hp or more. The unit is

called the DT Fullpak model. Features include: smooth bowl interior; bowl floor with some 28 sq. ft. of load base; measures only 40" from tip edge of cutting blade to the face of the tailgate.

LeTourneau-Westinghouse Co., Peoria, Ill.

146/Circle on Reader's Service Coupon

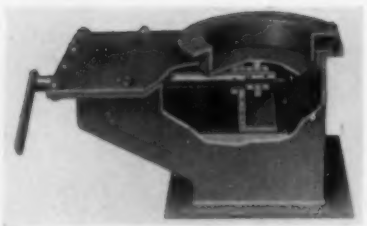


Belt Clamp

A heavy-duty clamp designed for long, high-tension conveyor belt installations has been developed by Flexible Steel Lacing. Called LS-3, the unit is an addition to the line of Far-Pul belt clamps, and is recommended for belts 30 to 36 inches wide. The LS-3 is all-steel; consists of two pair of clamping bars, with one pair for each belt end.

Flexible Steel Lacing Co., Chicago 44.

147/Circle on Reader's Service Coupon



Hopper Shut-Off

A new design of slide gate for use as an unloading and shut-off valve in dry dust collector hoppers, storage bins, transport lines and such is now available from Ducon. Four advantages reported: positive, dust-tight seal when closed; non-sticking; only one handle used in operation; free-flow. Unit eliminates use of close-tolerance sliding surfaces, lessening chance of faulty gate mechanism operation.

Ducon Co., Mineola, N. Y.

148/Circle on Reader's Service Coupon

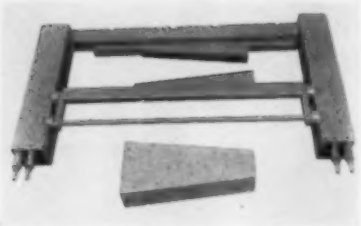
Belt Feeder

Offering a capacity range from 5 to 550 tph, the newly announced Barber-Greene model F-8 belt feeder has been designed for any application where a high degree of accuracy is

necessary in feeding materials. A pre-engineered, packaged unit, the F-8 is shipped completely assembled and ready for immediate installation. Two drive arrangements are available.

Barber-Greene Co., Aurora, Ill.

149/Circle on Reader's Service Coupon



Brick Lifter

A new type of brick lifter, designed to be used in combination with old or new dry presses, is reported to reduce manufacturing losses by eliminating scored bottoms, broken corners, edges and fractures caused by pushing. Unit handles single or multiple brick in 4½", 6" and 9" widths in straights, arches, wedges, keys, skews and cupla block. The air-operated lifter has 2 horizontal neoprene-padded "grip-lift" bars mounted in a 3-sided frame. Two models are available, for straight or odd-shaped brick.

Riverside Tool & Die Co., Latrobe, Pa.

150/Circle on Reader's Service Coupon

Fork-Lift Tractor

A versatile new tractor-mounted fork lift, which lifts 4,000 lbs. at 24" load center and 5,000 lbs. at 15" load center, has been introduced by Sherman. The lift has lifting height of 12'6"; open channel ends to facilitate service of carriage and rollers without disassembling mast; high carbon steel inner rails with replaceable bearing plates between inner and outer tower rail masts.

Sherman Products Inc., Royal Oak, Mich.

151/Circle on Reader's Service Coupon

Hydraulic Presses

A new brochure from Lassman describes features of the Lassman Hydraulic presses, dry press, type SM in the SM-35 and SM-70. Features

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136-Screen Heating
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146-LeTourneau-Westinghouse
147-Flexible Steel
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151-Sherman Products
152-Benj. Lassman
153-Illinois Testing
154-Automatic Transp.
155-Link-Belt
156-Baker Truck
157-Syntron Co.
158-Allis-Chalmers
159-Hyster Co.
160-American Pulverizer
161-Chisholm, Boyd & White
162-Acme Steel
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Pages 28-29 Babcock & Wilcox
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of the unit are reported to include smooth, quiet shock-free operation; forming pressure readily adjustable without relief valves; forming speed can be changed without flow control valves; automatic control by means of air pilot operation employing solenoid operated air pilot valves.

Benjamin Lassman & Son, Route 8, Glenshaw, Pa.

152/Circle on Reader's Service Coupon

Pyrotroller

A new temperature controller, referred to as "Alnor" Pyrotroller, has been introduced by Illinois Testing Labs. The instrument is a pyrometer controller which means that it can be applied wherever a thermocouple can be used to measure temperature. The model shown is a flush-mounting case style, but other styles are available.

Illinois Testing Laboratories, Inc., Chicago 10.

153/Circle on Reader's Service Coupon

Skid Adaptor

A two-in-one low lift truck built to handle either pallets or skids is a product recently developed by Automatic. Transporters may be equipped with an auxiliary platform which can be folded back and held upright in order that the truck can move pallets. The platform can be lowered over the pallet forks and thereby converted into a platform or skid handler.

Automatic Transportation Co., Chicago 20, Ill.

154/Circle on Reader's Service Coupon

Motor Coupling

Link-Belt has announced a new low cost geared flexible coupling for shaft diameters up to 1⅞". Called the type MC, it is designed especially for use as a motor coupling, for transmitting power to generators, speed reducers, etc. The MC coupling sleeve is of one-piece design; enclosed in two-piece metal cover which is sealed to prevent lubricant loss or entry of contaminants.

Link-Belt Co., Chicago 1.

155/Circle on Reader's Service Coupon

Electric Forks

Fast, maneuverable electric fork truck with 3,000 lb. capacity is described in a new bulletin available from Baker. The bulletin, #1319, describes the Baker FTA-30.

Baker Industrial Trucks Div., Otis Elevator Co., Cleveland 2, Ohio.

156/Circle on Reader's Service Coupon

Pulsating Magnets

Syntron has announced publication of a new "pulsating magnet" Electric vibrator catalog. The 12-page booklet contains complete data and specs for Syntron's fourteen standard vibrators.

Syntron Co., Homer City, Pa.

157/Circle on Reader's Service Coupon

HD-6G Tractor-Shovel

A new eight page catalog (MS-1234) covering the design, engineering, and operating features of the HD-6G tractor is now available. The catalog also includes the specifications and attachments of the machine.

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

158/Circle on Reader's Service Coupon

Scoop, Ram Attachments

Scoop and ram attachments, two specialized attachments available with Hyster lift trucks, are described in literature available. Scoops are available in capacities from 8 cu. ft. to 1¾ yds.

Hyster Co., Portland, Oreg.

159/Circle on Reader's Service Coupon

American Hammermills

Construction features, capacity ratings, dimensions, hammer types and other information on American Hammermills is listed in a new bulletin.

American Pulverizer Co., St. Louis, Mo.

160/Circle on Reader's Service Coupon

Boyd Presses

A new booklet describes the many changes made in the Boyd press and the re-designed heavy duty Model Y press. Book includes information on Boydamatic; force feed lubrication; new bearings; air operated clutch-brake.

Chisholm, Boyd & White Co., Chicago 21.

161/Circle on Reader's Service Coupon

A4 Steelstrapper

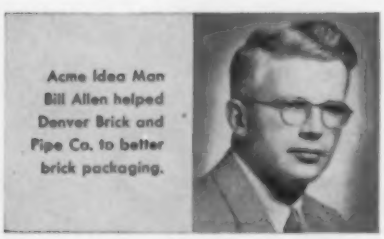
An eight page booklet on the Acme A4 pneumatic steelstrapper, a fully powered combination steel strapping tool, is available from Acme. The booklet shows applications, operating instructions and specifications.

Acme Steel Co., Chicago 27, Ill.

162/Circle on Reader's Service Coupon

Save with your AIM*. . . Denver Brick and Pipe Co. does . . .

Acme Steel develops powered brick strapping station



Acme Idea Man Bill Allen helped Denver Brick and Pipe Co. to better brick packaging.

ALWAYS ALERT TO ADVANCES that cut costs and improve efficiency, Denver Brick and Pipe Co., Denver, Colo., cooperate with their Acme Idea Man to service-prove the latest development in brick strapping stations. (Idea S3-47)

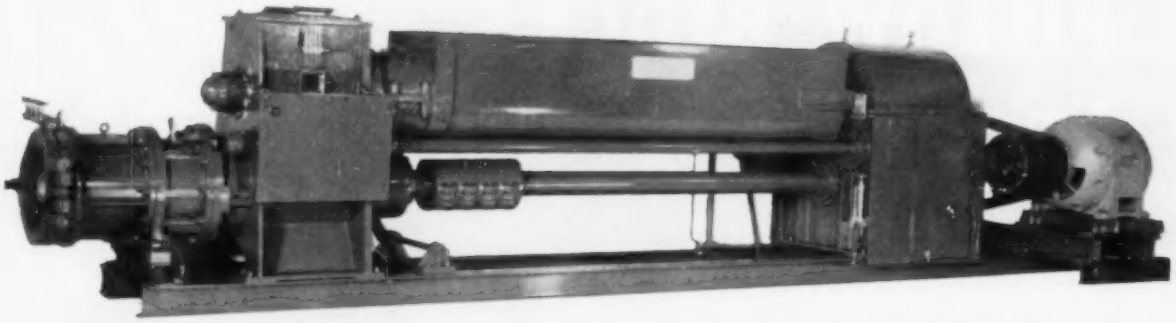
This new concept in brick packaging efficiency utilizes power equipment to minimize manual labor. The strapping station includes the new fully-powered A4 Steelstrapper which tightens strapping to pre-determined tension, then seals and cuts it . . . all pneumatically. An absolute minimum of operator effort is required. And a newly designed strapping dispenser and a new power strap feed track serve the A4 Steelstrapper. An ingenious feed device supplies paper corner protectors automatically.

Denver Brick and Pipe Co. has included this new strapping station development by Acme Steel as a key part of their new mechanized brick packaging line for volume production of hundred-brick packages.

***See your Acme Idea Man** about this all-new brick strapping station. Contact Him at the nearest Acme Steel office. Or write Dept. BES-68, Acme Steel Products Division, Acme Steel Company, Chicago 27, Illinois. In Canada, Acme Steel Company of Canada, Ltd., 743 Warden Ave., Toronto 13, Ontario.

ACME STEEL **STEEL STRAPPING**

TEAM THESE CHAMBERS PRODUCERS *To Make*



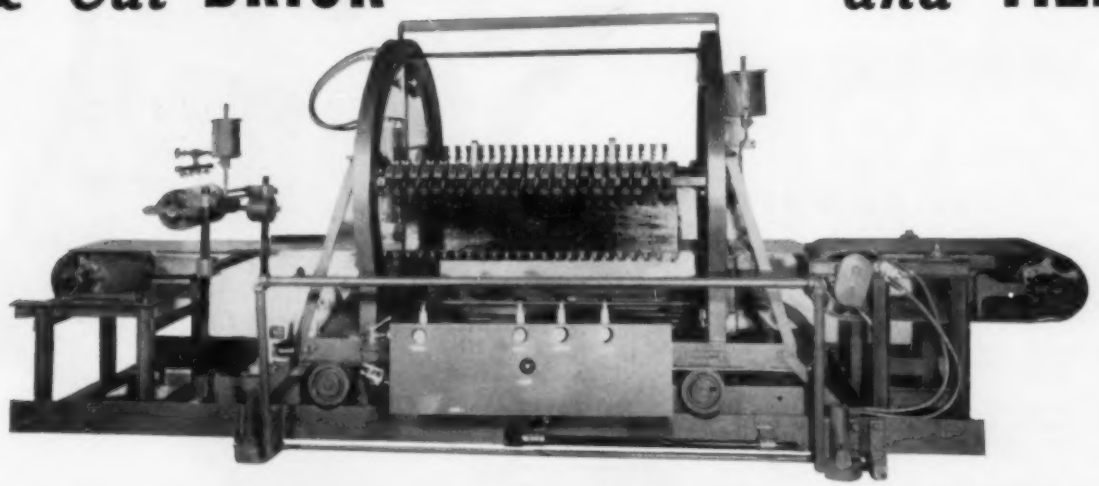
New No. 12 AC BRICK MACHINE

Hi-Power model, up to 300 HP, combines all-steel construction and generous use of alloy materials to match today's brick and hollow tile standards with safety factors provided for tomorrow's more exacting extrusion problems. 18¾" auger, fed by 21" augers in vacuum case; 12' pug mill tub.

No. 30 Series CUTTER

Four models of the #30 series, each available in length up to 5 12-in. cuts, are becoming nationally recognized as providing either maximum accuracy or high-speed bar cutting beyond the range of other machines. Quick-change platen assemblies and conveyor tailored to your exact requirements.

& Cut BRICK *and* TILE



AT LESS COST AND FOR GREATER PROFITS

Inquire today about the machines for your production.

SERVING YOUR INDUSTRY FOR OVER 100 YEARS

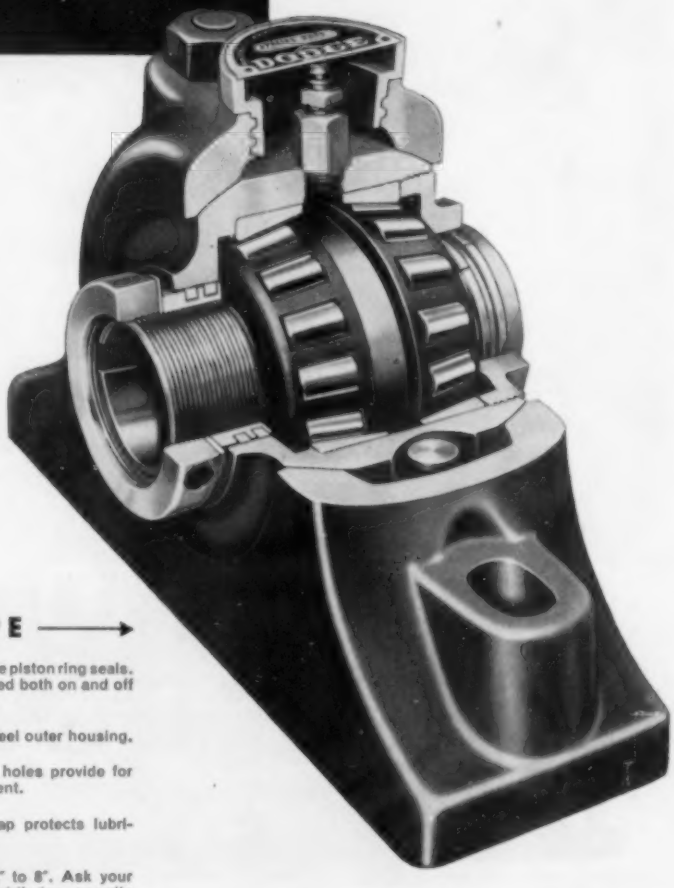
CHAMBERS BROTHERS CO. 1857 1958

52nd & Media Streets · PHILADELPHIA 31, PA.

DODGE PILLOW BLOCKS

Timken Bearing Equipped

America's super-quality line—with a 34-year record of keeping performance *up* and costs *down!* Five types—to fit practically any service condition. All assembled, adjusted, lubricated and *sealed* at the factory for precision performance—long life—dependability.



SPECIAL DUTY TYPE →

- Designed for extreme precision and high load capacities.
- Fully self-aligning.
- Special Duplex Timken Roller Bearing with tapered bore.
- Split tapered sleeve with straight cylindrical bore extends through entire length of housing.
- Easy to mount or demount. Adapter nut (or collar) clamps adapter sleeve to shaft with extreme firmness.
- Automotive type piston ring seals. Bearing is sealed both on and off the shaft.
- Rugged semisteel outer housing.
- Elongated bolt holes provide for lateral adjustment.
- Special dust cap protects lubrication fitting.
- Shaft sizes 1¾" to 8". Ask your local Dodge Distributor—or write us for Bulletin A670 giving complete technical data on America's most complete line of mounted bearings.

DODGE MANUFACTURING CORPORATION, 4900 Union St., Mishawaka, Ind.

CALL THE TRANSMISSIONEER, your local Dodge Distributor. Factory trained by Dodge, he can give you valuable help on new, cost-saving methods. Look in the *white* pages of your telephone directory for "Dodge Transmissioneer."

DODGE
of Mishawaka, Ind.

cut dryer loss with Additive-A

from Kimberly-Clark

When Additive-A is introduced at the pug mill, dryer loss is reduced because: 1. Clay lubricity is increased, reducing fault-causing stresses and strains and allowing you to extrude a stiffer column. 2. Tempering water is reduced up to 50%—less vapor pressure is generated. 3. Complete drying time is shortened yet reduced breakage and scumming losses are realized.

Here's what else Additive-A will do for you:

- Increase green plastic strength.
- Reduce laminations.
- Improve workability of the clay.
- Increase dry green strength.
- Permit more even temper.
- Extend life of augers, knives, dies and liners.
- Upgrade quality of all ware.

Write for descriptive folder, to: **Kimberly-Clark Corporation** • **NEENAH, WISCONSIN**
CHEMICAL PRODUCTS

Radiation Detector . . . Responds to 98% of any temperature change within 2 seconds . . . high-speed model responds in half second. For applications from 200 to 7000F.

Millivoltmeter Pyrometer —Vertical Case . . . Available in a variety of electric control forms.

Integral Cam Programmer . . . Enables complete 1-to-24 hour program to be precast. Electric or pneumatic control on one or both pens.

ONE STOP

SHOPPING

Strip Chart Recorder—Single or Multiple Point . . . Records all types of variables. Choice of pen speeds and chart speeds.

Heavy Duty Electric Motor . . . For operating valves, dampers, louvers and other final control elements.

Whether it's temperature, pressure, flow, or any other important variable you want to measure or control, Honeywell makes just the instrumentation for you. Our line of instruments is as broad as your requirements . . . you can choose exactly what you need.

This means you get all the instrumentation you require from a single source, so there is undivided responsibility for the complete installation. And you are assured that equipment suggested for your process is recommended without bias.

For the new process, the modernization program, or a replacement problem, find out how Honeywell can go to work . . . anywhere in the metal processing industry. Get in touch with your nearby Honeywell field engineer. He's as near as your phone.

MINNEAPOLIS-HONEYWELL, Wayne and Windrim Avenues, Philadelphia 44, Pa.

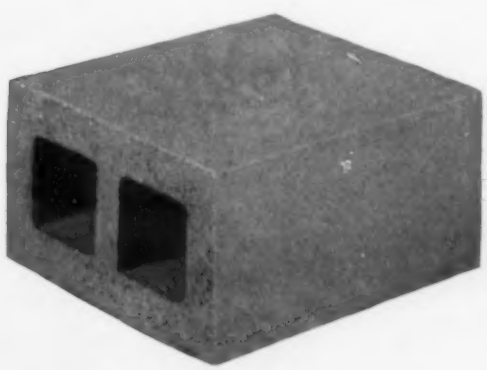
Honeywell

H HONEYWELL *First in Controls*

Photo shows PACO 4½" x 8" x 9" car tops set on end and used as perimeter block. Top deck is constructed with 4½" x 8½" x 18" PACO car tops. Each corner has a 7" x 8½" x 9" cored corner block. Perimeter and corner blocks are filled with lightweight insulation.

PACO CAR TOPS can cut your replacement costs as much as 50% — and increase your profits! The reason is simple. Paco Car Tops are made from the mineral pyrophyllite. This unusual, superior raw material permits the manufacture of thinner wall, larger core car top that is lightweight, stronger and highly resistant to extreme thermal shock.

PACO CAR TOPS do not have a softening point below actual fusing point, providing greater resistance to hot load deformation. The result is better, more efficient production. Paco Car Tops are easy to handle and install, and simple to replace individually as needed.
There is a PACO engineer as close as your telephone—or write for complete information!



NORTH STATE
PYROPHYLLITE COMPANY, INC.

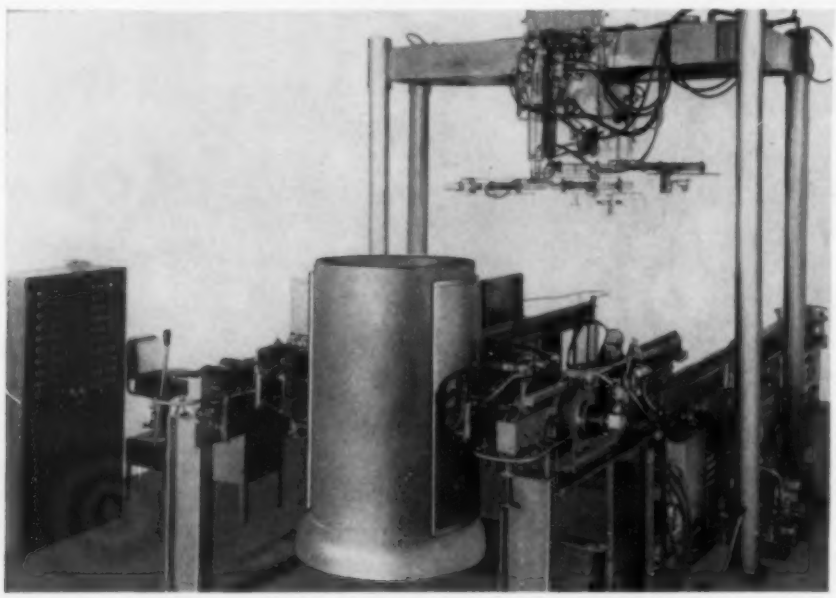
Telephone BRoadway 4-7055 Greensboro, North Carolina

OTHER PACO PRODUCTS INCLUDE: • Paco Plastic • Pacocast • Paco H.T. Cements • Paco Fire Brick Mortar • Paco Side Car Brick • Paco Fire Brick • Paco Ladle Lining • Paco Heatzone Compound

Equipment for the Ceramic Industry

PEARNE AND LACY INC. MACHINE COMPANY

Announcing the new OCTOPUS...



Pipe is taken directly from the Press
No socket boards required

The Pearne and Lacy OCTOPUS has been specifically designed to meet rigid automation requirements in providing a completely automatic operation in the handling and finishing of large sewer pipe. The automatic operating cycle finishes both the Spigot and Bell Ends, turns the pipe over, and places it on the pallet boards ready to be transported to the dryer.

(Patent Applied For)

Write now for your copy of the new Pearne and Lacy Catalog

Engineers and Manufacturers of Completely Automatic Handling and Finishing Equipment

We Invite your Inquiry

PEARNE & LACY MACHINE CO., INC.

P.O. Box 3366, Terminal Annex, Los Angeles 54, Calif.

and one for the pot!

added opacifier can make a big difference...too

Any old-time coffee connoisseur will tell you that the extra spoon of coffee—"for the pot" made all the difference in the world in the taste.

Ceramists are finding that it's much like that with opacifiers. That, by adding an extra percentage of TAM opacifier, quality is improved, rejects cut. As to opacifier cost—a reject reduction of only 2% will pay for 50% more opacifier. Any further reduction in rejects piles up savings in a hurry.

Why not follow the experience of other TAM customers who have cut respraying and refiring substantially. Talk it over with your TAM field representative.

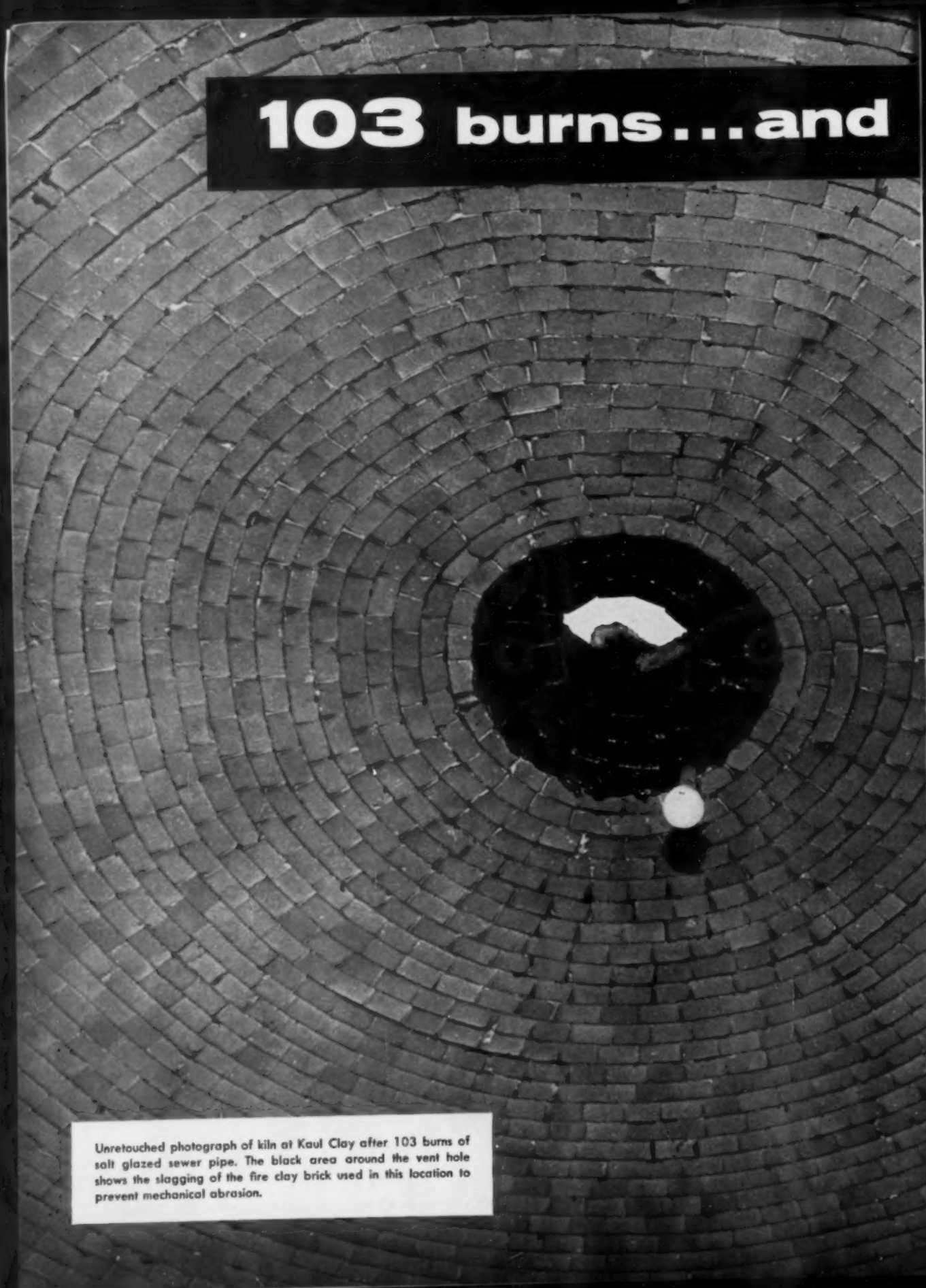
TAM

DIVISION NATIONAL LEAD COMPANY

Executive and Sales Offices: 111 Broadway, New York City
General Offices, Works and Research Laboratories: Niagara Falls, New York

TAM...the complete line SUPERPAX A • SUPERPAX • OPAX • OPAX S • TREOPAX • ZIRCOPAX • Double Silicates

103 burns...and



Unretouched photograph of kiln at Kaul Clay after 103 burns of salt glazed sewer pipe. The black area around the vent hole shows the slagging of the fire clay brick used in this location to prevent mechanical abrasion.

no salt glaze reaction

B & W Insulating Firebrick increase production 11%, cut cycle time 28% at Kaul Clay Manufacturing Co.

This photograph of #17 kiln crown at the Kaul Clay Manufacturing Company, Toronto, Ohio, is clear evidence of the performance of B&W Insulating Firebrick in salt glaze periodic kiln service.

Kaul Clay's production figures prove it, too. Over a recent six months' period, plant records indicate an *11% increase* in output. They obtained 2.74 burns per month from kilns lined with B&W Insulating Firebrick as against 2.47 burns per month from kilns constructed of firebrick. Cycle time on 4" glazed pipe—setting, burning and drawing—has been reduced from 7 to 5 days. Fuel costs have also been cut substantially. During this time, approximately 40% of Kaul Clay's kilns were converted to IFB construction.

This profitable performance is due to *two* properties of *lightweight* B&W IFB: (1) They store and conduct less heat. Their low heat storage permits quicker heating and cooling of furnaces, thus helping step up production and cut cycle time. It means, too, that less fuel is required to bring them up to temperature. (2) B&W IFB have excellent resistance to the atmosphere of salt glazing kilns. That's because the chemical properties of B&W IFB enable them to withstand alkali attack.

Why don't you begin profiting from the advantages of lightweight B&W Insulating Firebrick in periodic kiln service? Consult your local B&W refractories engineer on your specific application. He may be able to point the way to new savings for you.

Bulletin R-43 gives helpful data on the use of B & W Insulating Firebrick in periodic kilns. Send for your copy today.

BABCOCK & WILCOX

THE BABCOCK & WILCOX CO.
REFRACTORIES DIVISION
GENERAL OFFICES: 161 EAST 42nd ST., NEW YORK 17, N.Y.
WORKS: AUGUSTA, GA.

B & W REFRACTORIES PRODUCTS: B & W Allmul Firebrick • B & W 80 Firebrick • B & W Junior Firebrick • B & W Insulating Firebrick • B & W Refractory Castables, Plastics and Mortars • B & W Silicon Carbide

R-878

"takes it" as fast as you can "dish it out"!

WIDE OPEN PERIPHERY MEANS NO LIMIT TO SPEED OF CHARGE

Only the phenomenal Smith Turbine-Type Mixer has a full 360° charging area. *Whatever the speed of your charge — that's the rate this mixer accepts it!*

Discharge is just as fast: the mixer is available with up to four discharge doors, depending on requirements.

But that's not all to the story of speed. Because of "Live Mix" (no dead center area) mixing is at a peripheral rate of *600 feet per minute!*

Mixing is done in a doughnut-shaped drum. Blades set up a braiding action which breaks down centrifugal forces.

For detailed data write giving your type of application.

SMITH

Since 1900, the pioneer designer and foremost manufacturer of the world's finest mixers.

THE T. L. SMITH COMPANY • **Milwaukee, Wisconsin** • **Lufkin, Texas**

Affiliated with Essick Manufacturing Company • Los Angeles, Calif.

A8-4055-1P

When you need

a tough fan for a tough job...

INDUSTRIAL PROCESSES

BOILER GAS RECIRCULATION

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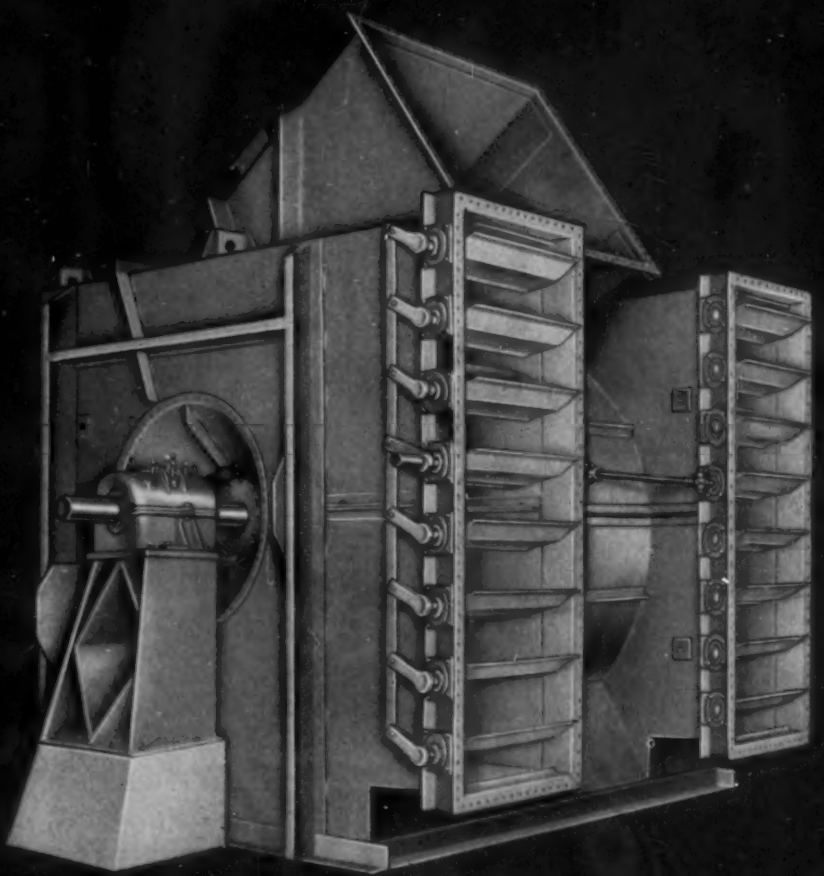
ROTARY KILN EXHAUST

BLACK LIQUOR INDUCED DRAFT

WASTE HEAT INDUCED DRAFT

STEEL MILL FURNACE CIRCULATION



Westinghouse offers you a Heavy-Duty Fan... the right type...the right size...the right blading

Call your nearest Sturtevant Division Sales Engineer, or write Westinghouse Electric Corporation, Dept. F-22, Hyde Park, Boston 36, Massachusetts.

J-80662

YOU CAN BE SURE...IF IT'S Westinghouse

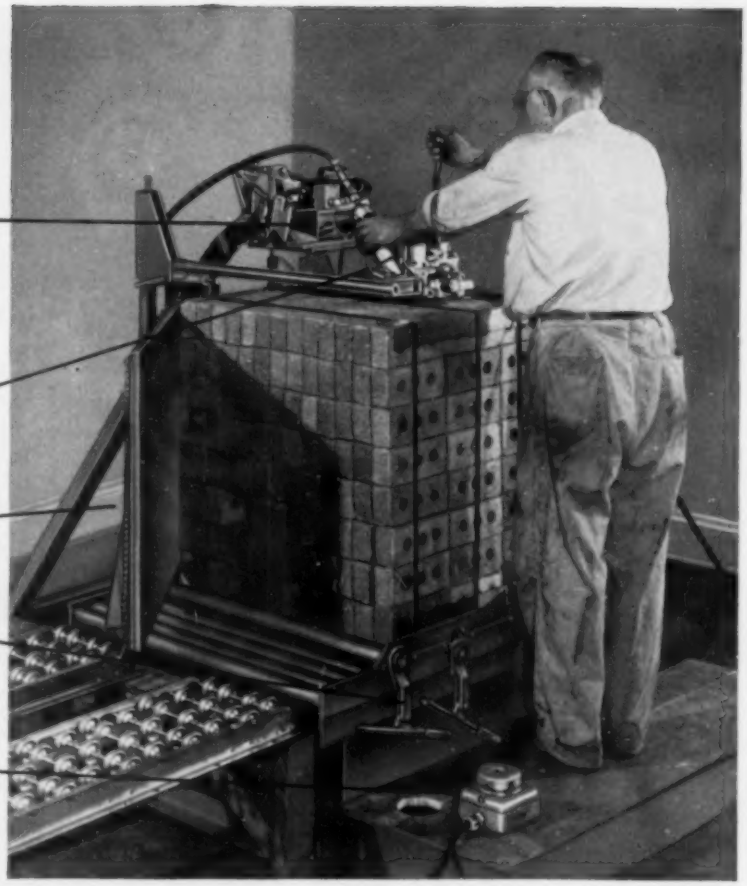
New Signode PSF-1 Power Strap Feeder, powered by ¼-hp 115-volt AC motor, puts strap around pack in seconds.

Signode Model AP58 air-powered Seal Feed Strapping Machine. New Electric Model AE58 also available.

Gate, closed during stacking provides smooth-sided cube.

Foot controls position cube for second and third straps.

Foot pedal (lifted out of recessed position in platform for visibility) controls strap feeder motor.



NEW! Signode Semi-Automatic One-man Brick Strapping Station

How it works

The operator feeds an end of the strap into the Power Strap Feeder and presses the foot button. The strap is quickly fed, by ¼-horsepower electric motor, down behind the package, across beneath, and up to the operator at the front of the package. No helper needed. Air power in the strapping tool pulls the strap to the right tension every time. One stroke of the handle puts on the seal and cuts off the strap. The whole operation is completed in 8 to 10 seconds... is simply repeated as the package is moved to the next stop. Foot-operated stops provide positive positioning, so all straps go on straight at the right place.

• You'll strap brick at less cost in minimum time with this new setup. It is simple, dependable, foolproof, and adaptable.

The new Signode PSF-1 Power Strap Feeder and the famous Signode AP air-powered seal feed strapping machine are combined with a roller conveyor section to make this strapping station. Other combinations can readily be worked out by a Signode representative to meet your needs.

You'll want to see this station at work. Call the Signode man near you or write:

SIGNODE

First in steel strapping

SIGNODE STEEL STRAPPING CO.

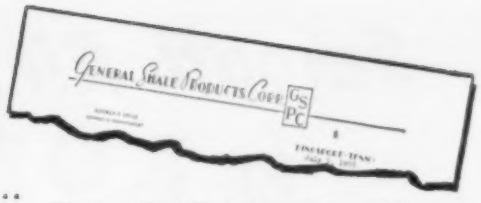
2629 N. Western Avenue, Chicago 47, Illinois

Offices Coast to Coast. Foreign Subsidiaries and Distributors World-Wide
In Canada: Canadian Steel Strapping Co., Ltd., Montreal • Toronto

Let these leading ceramic producers tell you why HARROP KILNS RATE NO. 1 with them!

Built in record time

When deadlines mean dollars... you can count on Harrop's engineering skill and efficiency to speed the job.



"Getting this kiln into operation at this time is very advantageous for General Shale . . . and want to extend our thanks to Harrop Ceramic Service Co. for the efficient way that the whole job has been handled."

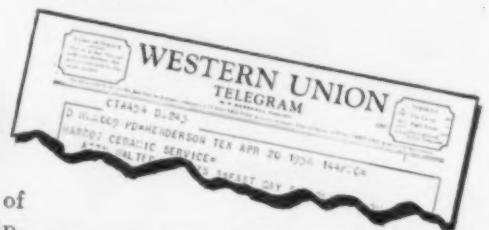
Turn out a superior product

From material-testing through to test firing . . . Harrop designs and builds to produce top quality ware.

". . . your three kilns are operating most satisfactorily and are largely instrumental in our having gained the reputation of manufacturing the finest brick in this part of the world."

Increase production

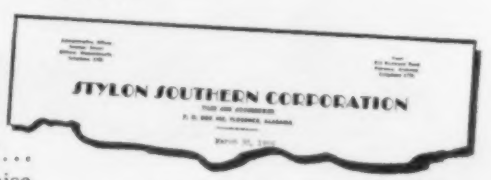
Complete integration of product-handling equipment with Harrop dryers and kilns speeds production, lowers cost.



"Our new Harrop kiln is on 51 minute schedule . . . daily production 100,914 face brick, 99 percent number one quality with approximately one percent number two quality with no loss." Homer Bryce, Henderson Clay Products.

Maintain high performance standard

From plants the world around... Harrop-built kilns earn top praise for proven performance, day-in and day-out.



". . . complete satisfaction with the workmanship and appearance of our two Harrop dryer-kilns at our new plant, and particularly the high degree of performance to date."

There's the record that rates Harrop No. 1 . . . the number one source for these satisfied users and for *you*, too. Write us, please, for a non-obligating consultation on *your* kiln or dryer needs.

HARROP

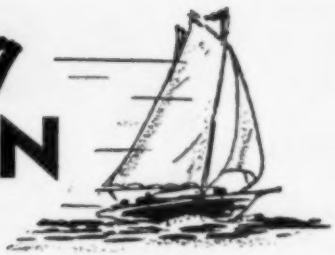
Harrop Ceramic Service Co.
35 EAST GAY STREET — COLUMBUS 15, OHIO

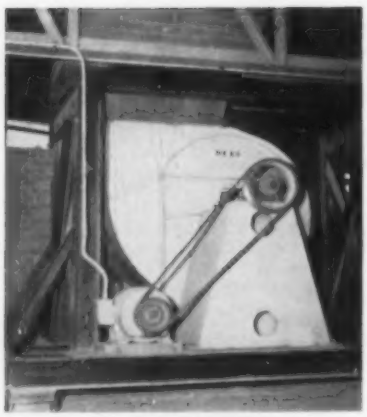
British Associate: British Ceramic Service Co., Ltd., Bricesco House, Stoke-on-Trent, England

Harrop Electric Furnace Division, 3470 E. Fifth Ave. Columbus 19, Ohio . . . Laboratory, Industrial and School Furnaces

Practical ceramic engineering put profitably to work in
TUNNEL KILNS • DRYERS • PLANT DESIGN

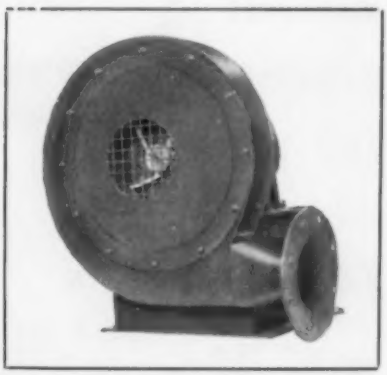
Smooth Air Handling *by* ROBINSON



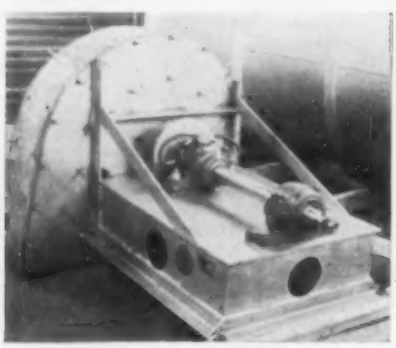


Robinson Type AE-6-BB Single Inlet Exhaust Fan serving a tunnel kiln exhaust system.

Robinson Fans for Refractories Production



Robinson Turbine Type CS Pressure Blower (Bulletin No. 1100).



Special AE-6-BB exhauster for High Temperature Recirculating Systems.

Send for our Catalog

Robinson Sulkey Type Cooling Fan (Bulletin No. 8001).

There are Robinson fans for every tunnel kiln in refractories production. High temperatures are encountered and in many cases large volumes of gases must be handled. Frequently floor dryers are controlled in temperature and moisture to less than 1° or 1%±. Only Robinson fans are made to handle air—for all purposes—in refractory production with extreme smoothness.

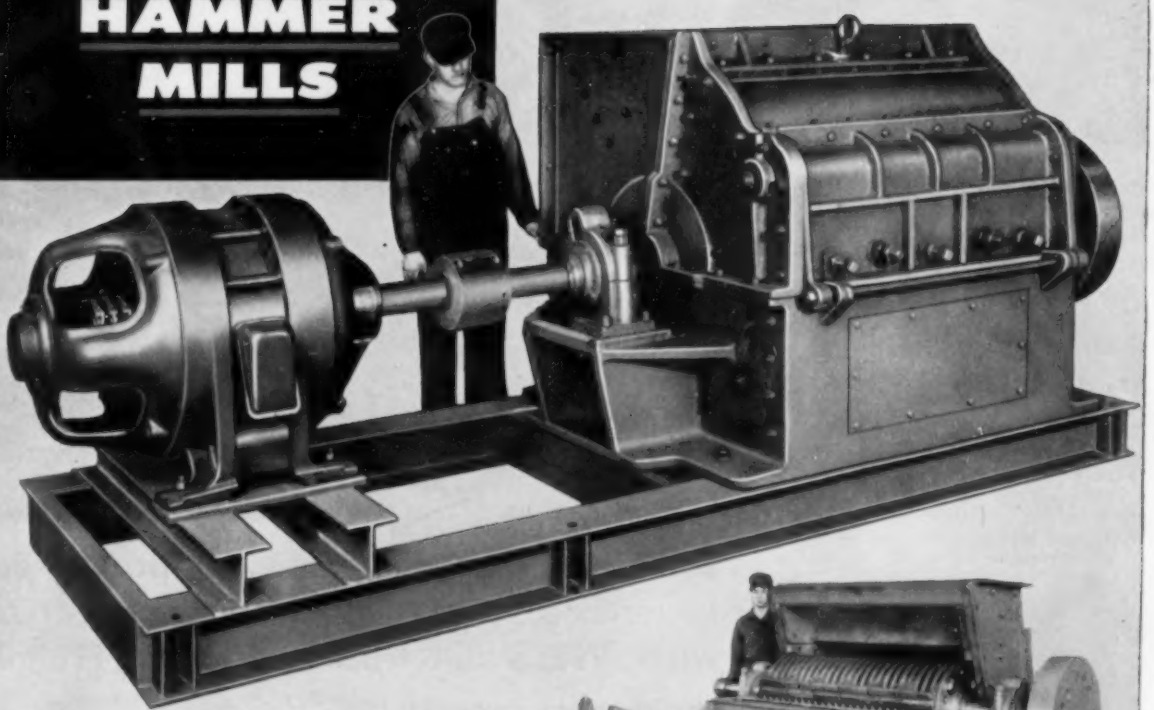
SEE OUR CATALOG IN Ceramic data book Page 283

STRENGTH AND QUALITY

ROBINSON VENTILATING CO.

ZELIENOPLE, PA.

WILLIAMS *heavy duty* HAMMER MILLS



- **Crushes, Grinds, Shreds To Finished Size In One Operation**
- **Reduces Production Costs Up To 50%**
- **Saves Up To 75% On Equipment Cost**

Williams No. 60 GA Mill with heavy duty steel plate frame. Cover has been opened to show heavy duty manganese steel liners, breaker plates, grate bars and hammers.

Whether your size reduction job involves crushing, grinding or shredding—whether the material is mineral, chemical, vegetable or animal—Williams has a hammer mill designed to *do it from start to finish in a single operation.* More uniform product, increased output, plus savings in time and labor can *cut production costs as much as half!*

Extra primary and secondary crushers are seldom required with a Williams—no extra drives or conveyors, no costly foundations or buildings for additional crushers are necessary. Expensive maintenance, replacement parts, excessive downtime and labor are reduced to a minimum.

Learn how a Williams hammer mill can step up your output, and improve your product quality. *Write —explain your operation—and ask for a catalog.*

WILLIAMS PATENT CRUSHER & PULVERIZER CO.
2709 N. BROADWAY **St. Louis 6, Mo.**

WILLIAMS
CRUSHERS GRINDERS SHREDDERS
Oldest and Largest Manufacturers of Hammer Mills in the World

FIVE days' time completed the SWISS-LOK structural frame for this 54,300 sq. ft. building for Logan Clay Products Co. at Logan, Ohio.

ONE crane was the sole erection equipment required for this building structure for Davis Firebrick Company at Jackson, Ohio. Crane service was required but one-third the time of conventional erection because of fast SWISS-LOK connections.

Corrugated aluminized steel sheeting was selected by Davis Firebrick Company for this building at Oak Hill, Ohio. Any type of sheeting desired is applicable to SWISS-LOK structures.

Brick and Clay Products Companies get lower cost, faster building construction with SWISS-LOK Tubular Building Frames

LOWER COST BECAUSE:

Tubular members save ⅓ steel weight without loss of structural strength
⅓ less shipping weight
Greatly reduced crane service (no other equipment needed)
Greatly reduced erection labor hours

FASTER BECAUSE:

No welding, cutting, bolting or riveting at the site
All parts pre-fitted for quick assembly and locking
All frame members can be shipped by fast motor freight

BETTER BECAUSE:

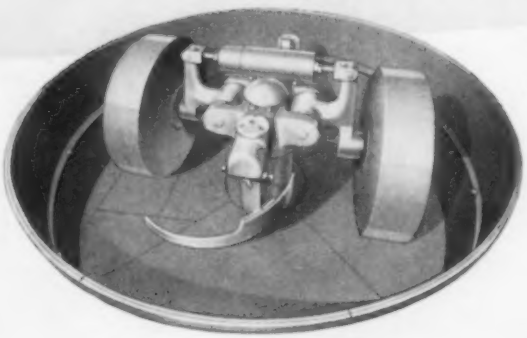
Swiss-Lok building frames do not depend on roofing and siding construction for support, alignment or rigidity
Truss chords are parallel to roof pitch, allowing more overhead space for movement or storage of materials
All new, tested pipe is used exclusively

All stress calculations for SWISS-LOK building structures conform with A.I.S.C. standards. Any type of roofing and siding may be used, and standard wall tying and sheet metal fastening are applicable. For descriptive, illustrated literature, write:

SWISS FABRICATING, INC.

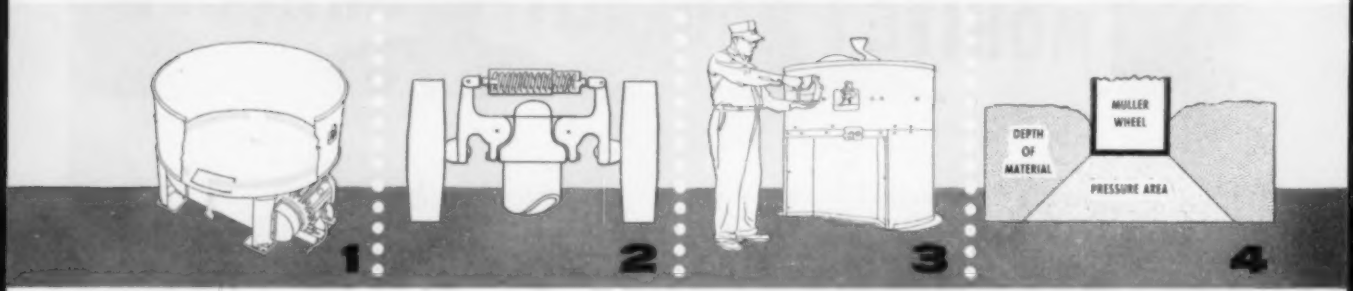
Camp Horne Road, Pittsburgh 2, Pa. • Phone WEllington 1-2646

Here's why SIMPSON MIX-MULLER® is today's BEST BUY in MIXING EQUIPMENT



Interior crib detail of Model 3F; 50 to 60 cu. ft. batch capacity Mix-Muller.

The advantage of preparing dry, wetted or plastic materials in a Simpson Mix-Muller is written in *savings*. Controlled mixing *cannot fail* to result in thorough, effective utilization of raw materials. Adequate control over moisture alone can mean the difference between an unwieldy reject ratio and a profitable mixing operation. Four outstanding features of the Simpson Mix-Muller play an important role in the kind of control over product quality so necessary to return profit from manpower, machinery and materials. See how they are designed to save you time, labor, material, power, maintenance and *money*:



1. BOTTOM DISCHARGE • STATIONARY PAN

Mix-Muller power is used to *mix* . . . none is wasted to move machinery or material mass. Muller and plow action clears pan quickly, thoroughly.

2. SPRING LOADED MULLERS

. . . allow muller pressure to be adjusted to the type and density of materials to be mixed. You reduce mulling time, build desired properties faster.

3. SAFE, EASY to OPERATE and MAINTAIN

You get large batches prepared in minutes. Design is simple, rugged. *Intense*, but slow speed, action extends machinery wear life. Maintenance people welcome the self cleaning action.

4. MOST THOROUGH MULLING ACTION EVER DEVELOPED

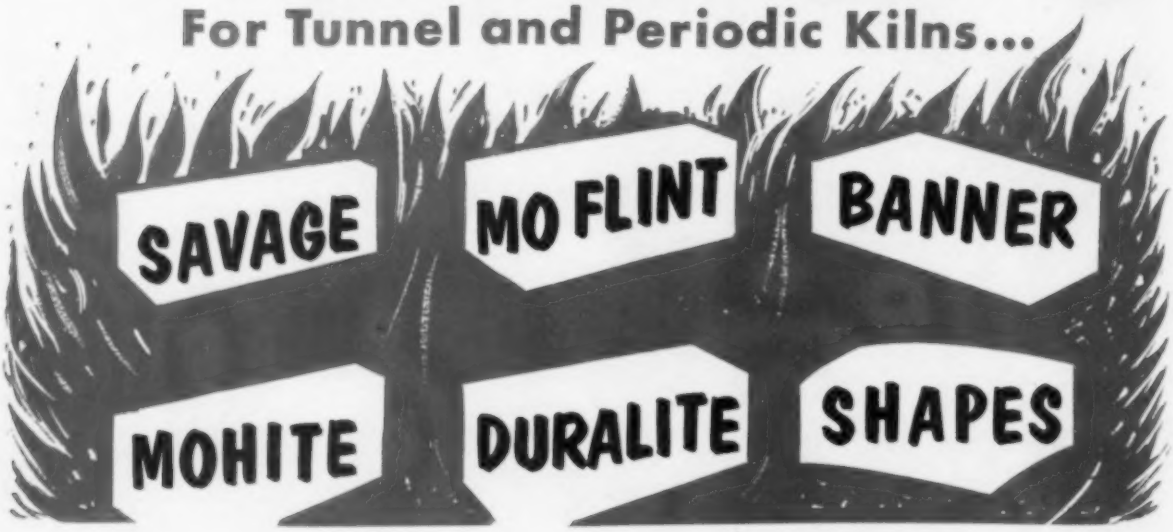
Thorough dispersion affords high yield of even trace elements and optimum utilization of mixing properties. High muller pressure to area ratio (see chart) assures most mulling per revolution.

Model 2F; 30 to 40 cu. ft. Mix-Muller. Note unit drive—easy adaptability for dust hood or exhaust. It's *built* to be integrated into a materials handling or continuous mixing system!

NATIONAL
Engineering Company
654 Machinery Hall Building
Chicago 6, Illinois

FIREBRICK
THAT CAN TAKE IT!

For Tunnel and Periodic Kilns...



Periodic and tunnel kilns need five different quality and composition firebrick for top performance and long service. From intermediate through High Alumina Quality, WELLSVILLE FIRE BRICK COMPANY can supply refractories to your most exacting specifications. Add to this, WELLSVILLE'S many years of experience in supplying quality refractories. Whether it's a new kiln or repairs, you can count on WELLSVILLE for top quality and top service. We'll be glad to assist you with recommendations on brick, shapes, castables, plastics and cements.

Write

WELLSVILLE *Fire Brick* COMPANY

WELLSVILLE MANUFACTURERS MISSOURI

"Buffalo" Type "CR" Radial Blade Fan

Widely-used in rugged steel mill applications, the "Buffalo" Type "CR" Radial Blade Fan is unsurpassed for dependable and long-lasting service under the most severe industrial conditions.

The "CR" is unique in the fact that the same design principles which reduce wear actually increase the efficiency of these husky fans. An engineering refinement of the radial blade principle — plus a new high in streamlining the entire fan, from inlet through wheel to outlet — boosts performance at the same time that it cuts down wear. (See drawings at left.)

Add to these wear-resistant **design principles** the long-standing "Buffalo" tradition of heavy-duty reliable **construction features**, and you have an unbeatable combination of factors contributing to maximum efficiency and minimum wear.

DESIGNED FOR PERFORMANCE UNDER DEMANDING CONDITIONS

Streamlined housing and gradually diverging outlet not only increase static efficiency, but reduce housing wear because of minimum turbulence.

Mating sections of the inlet and wheel flange form a true-half-circle. Resultant smooth air flow further reduces wear and provides peak performance.

Investigate this high performance fan, designed for severe industrial service. Ask your nearby "Buffalo" Engineering Representative for full details on the "CR", or write for Bulletin FD-205.

Every "Buffalo" Fan features the famous "Q" Factor — the built-in QUALITY that provides trouble-free satisfaction and long life.

BUFFALO FORGE COMPANY

BUFFALO, N.Y.

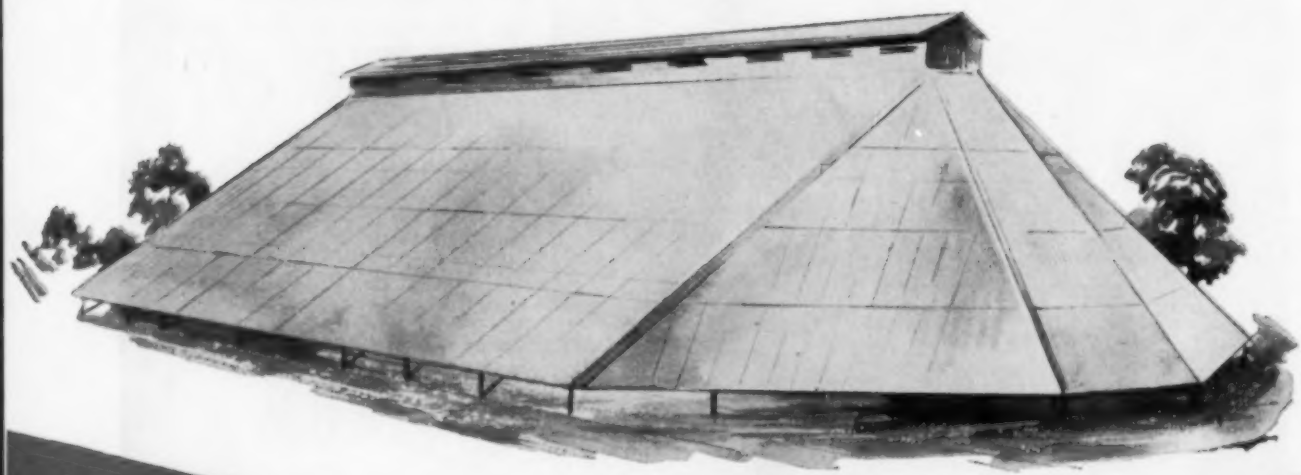
Buffalo Pumps Division, Buffalo, N.Y. • Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

VENTILATING • AIR CLEANING • AIR TEMPERING • INDUCED DRAFT • EXHAUSTING • FORCED DRAFT • COOLING • HEATING • PRESSURE BLOWING

Varco
STEEL BUILDINGS

R. G. VARNER STEEL PRODUCTS, INC.
P. O. BOX 781 • PINE BLUFF, ARKANSAS

CLAY STORAGE BUILDING



ARE YOU TROUBLED WITH WET CLAY AND INADEQUATE STORAGE?

BURY THOSE TROUBLES UNDER A LOW-COST VARCO STEEL BUILDING

The Varco Clay Storage Building is ready to cut your production cost by insuring a sufficient supply of workable clay.

This sturdy, maintenance-free structure can be erected on your foundation for a cost as low as $1.00 per ton of storage space.

VARCO has the metal building you need, when you need it, at the price you want to pay.

SPECIFICATIONS

SIZE—60, 80 or 100-foot clear spans. Building designed to handle any type conveyor system up to 24-inch belt.

MATERIAL—Aluminum or galvanized siding.

CAPACITY EXAMPLE—100 x 300-foot building will provide clay storage for approximately 16 million bricks.

Brick & Clay Record

June, 1958 Vol. 132, No. 6

5 SOUTH WABASH AVE.
CHICAGO 3, ILL.
FRanklin 2-6880

Established 1892.
now in 67th year.

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HAROLD H. ROSENBERG, Founder
1882-1958

Treasury's Still Trying

The Internal Revenue Dept. is proposing a bill which will affect the present Supreme Court ruling on depletion. The bill calls for a cut-off in processing at grinding, just before forming, with the figure for depletion set at 5% on the cost to that point.

This is a far cry from the 15% at that point for refractory clays and 5% on the finished product for other than refractory clays.

BRICK & CLAY RECORD has frequently voiced its opinions on cut-off points and percentages. We still stand on our earlier recommendations, which were written into the original bill which is now law.

The entire heavy clay producing industry is virtually small business. Most of our producers do less than $5 million annually and no producer is above $75 million.

Small business has been taxed to death. Its mode of operation is such that many workers must be employed and costs are high. Small business, therefore, needs tax relief to give aid; even more than aid perhaps, it needs relief to survive at all.

Clay deposits don't last indefinitely. Some measures must be taken to make possible the continuation of these enterprises.

As a matter of depletion, on the surface it would seem that depletion for one industry would be the same as for another, such as oil. This, however, is far from the case. Oil is transportable, easily and economically; to such an extent, that it's worthwhile importing from overseas. Clay, unlike oil, is almost always used in manufacturing on the site of the deposit. Because of the weight of raw materials and finished product, clay products must necessarily have small distribution areas, if there's to be any manufacturing profit.

Because of these factors, when oil runs out at one site, it's easy to build a pipeline . . . but when clay runs out, an entire plant must be scrapped. The company is then either out of business or must build elsewhere.

ONLY WAY TO HELP

Fair depletion allowances are the only way to help the small business of clay products manufacturing. This had been accomplished through the recently passed legislation, so that for the first time clay products men were able to consider themselves as a real business able to go on indefinitely. Prior to the legislation, when a deposit ran out, the small plant went with it. Is this what Internal Revenue wants now?

Clay producers are not giant corporations like General Motors, with great cash and capital reserves. They've been taxed to the breaking point all along because no one would listen to them. A small industry has a small voice. Now we have our chance, but it's still in jeopardy. Added to this general problem are the constantly rising costs that make an unbearable squeeze on the manufacturer.

This is no time to be squeamish. The depletion law is a just one, one which will permit the industry to survive as a real business. The present law should stay on the books . . . but a valiant fight is needed to retain it.

This law was attained by a cooperative effort over a nine-year period. Any sniping at it by the government can be warded off by a similar industrywide effort. Let's keep working together . . . our business lives may depend on it.

The Editors

NEWS OF THE INDUSTRY

A. P. Green Acquires Stevens Fire Brick

William S. Lowe, president of the A. P. Green Fire Brick Co., has announced that by an exchange of common stock the Green company has acquired the Stevens Fire Brick Co. of Macon, Ga.

The Stevens Fire Brick Co. is a small, well-established company producing Georgia type of super, high and medium duty fire brick. These products of the Stevens company are of a different type than those produced in Mexico, Mo. This continues the Green policy of rounding out a complete line of refractory products to meet the demands of industry in all sections of the country.

Robert McIntosh, formerly of the Mexico office and more recently in charge of the Dallas office of the A. P. Green Fire Brick Co. of Texas, has taken over as manager of the Stevens operation.

TRI Fall Membership Meeting at Broadmoor

Executive secretary Avery Newton has announced that the annual Fall Membership meeting of TRI will be held Sept. 11-12 at the Broadmoor, Colorado Springs, Colo.

Lightweight, Oversize Tile Produced by Burns

Henry K. Burns, Jr., president, looks at the new block with his father, seated at right, who's chairman of the board; in back are, at left, William Penn, Jr., vice president, and Derry Burns, vice president. Watch for a story on this soon.

A brief item in the April news pages told of a $25,000 addition at Burns Brick Co., Macon, Ga., for making an oversize tile unit.

Since that item appeared, we've gotten further information plus this photo. Henry K. Burns, Jr., president, says that the unit weighs only 28 lbs., made in sizes up to 8x8x16", and reportedly is the first vitrified unit of such size to be put in mass production.

In other details, the unit is fired in a tunnel kiln; has a compressive strength of over 1200 lbs. per sq. in.; moisture absorption of 10% to 12%. Present production of 3,000 units a day will be boosted soon to 20,000. The next unit is made by press rather than by extrusion through a die.

New Lightweight Plant for British Columbia

British Columbia Lightweight Aggregates Ltd. expects to have their new plant in operation later this year, according to a recent report. The company was formed by a group of Vancouver businessmen.

Mining and processing of the material will take place on Saturna Island, one of the most southerly of the Gulf Islands lying between Vancouver and Victoria.

Robco Expands Promotion By Hiring Agency

Robinson Brick & Tile Co., Denver, has launched plans for an extensive new advertising program with the initial move the appointment of Bradley Lane Advertising Agency to develop and handle the campaign to stimulate sales.

Illinois Brick Plans Continued Improvements

Despite the current business decline, or perhaps because of it, Illinois Brick Co. of Chicago is continuing their program of improvements in operations and methods.

President John Goodridge has said, "It is apparent that we will save money on this (improvement) project, as compared to what it would have cost last year or the year before. We will have the improved equipment ready in time for the expected upswing in business. If the upswing is delayed ,this will improve our competitive position meanwhile. (We feel) . . . confident the present dull business will be succeeded by another period of growth and expansion."

"We want to be ready when this time comes, and what we are doing now . . . is designed to increase our earnings potential for the future," Goodrich said.

In his report to company stockholders, Goodrich reported that sales for the first 15 weeks of 1958 dropped to $1.2 million from last year's comparable figure of $1.3 million. Net profit figures for 1958 were $28,293 or 14¢ per share, compared to last year's figures of $117,191 and 57¢.

S&F Aglite Output 90% Sold for Year

The Sayre & Fisher Co., Sayreville, N. J., disclosed that firm orders have been received for Aglite, a synthetic lightweight concrete aggregate, committing 90 per cent of the production of its new $1,500,000 plant for the balance of this year.

David S. Fischman, chairman of the 108-year-old company, in a report to stockholders, revealed that one contract alone calls for delivery of 100,000 cu. yds. of Aglite over the next 12 months. Sayre & Fisher's Aglite plant, the world's largest, currently is operating on a three-shift 20-hour basis producing an average of 1,300 cu. yds per day.

Fischman also said that the company's newly automated sand plant, one of the largest and most modern in the East, is operating at capacity of 1,000 tons per day. Sand orders are being filled as fast as the product is mined and classified, he added.

Introduction of new styles, colors, sizes and packaging of brick, plus economies effected through plant modernization, will insure another highly profitable year for the brick division, Fischman reported. Clay operations, however, have been retarded by the slowdown in the steel industry, he added.

Natco Plans To Boost Stock by 250,000 Shares

In the annual report to stockholders of Natco Corp., Pittsburgh, President R. A. Shipley reported that stockholders had voted in favor of an increase in the authorized $5 par common stock from 750,000 shares to 1 million shares.

Shipley also reported that the $2.5 million Natco plant at Bessemer, Ala., is now in partial operation.

During the first quarter of 1958, Shipley said, net sales of the company were $3.0 million, as compared with a 1957 figure of $3.2 million, a decline of about 7%. Net income declined from $114,151 to $24,361.

Milton Shipments In April Set Record

A good year in 1958 for Milton Brick Co., Toronto, Ont., Canada, was recently forecast by George Kelly, president. The company shipped a record 2.5 million brick in April, bringing 1958 shipments to 6.4 million brick. This compares with shipments of 3 million last year, during part of which time production was held up by a strike.

So far in 1958, Kelly said, the company has an assured quantity of 15.5 million brick either already shipped, on the books, or specified. This compares with a 1957 annual total of 19 million.

Kaiser Introduces New Refractory Material

A new basic refractory material formulated especially for protecting the floor surfaces of marine and stationary boilers has been introduced by Kaiser Chemicals Div., Kaiser Aluminum & Chemical Corp.

The material is called Oceanite, made from high-purity Kaiser periclase.

Louisville Files Tax Suit

Louisville (Ky.) Fire Brick Works filed suit in Federal Court in that city to recover $36,888.49 income taxes and interest.

The tax period covered is for 1951-52.

ECSA To Meet In Denver, July 21-22

The Expanded Clay & Shale Assoc. will hold their annual Midyear meeting on July 21-22 at the Cosmopolitan Hotel, Denver, Colo., according to Executive Secretary Ted Berger.

Detroit Establishes Masonry Information Center

A Masonry Institute to provide information and education on all phases of masonry construction has been established by the Detroit Mason Contractors Assoc. The Institute is designed to serve architects, builders and the general public.

Co-chairmen of the new Institute are James Snyder, president of the Detroit Mason Contractors Assoc., and Robert Bonus, president of Hay-Con Tile Co.

In addition to mason contractors, suppliers of brick, block, tile, mortar, etc., are represented in the Institute.

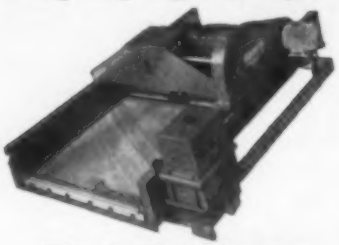
Aims of the Institute include developing masonry specifications, average cost indexes, a code of good practice and seal of approval in masonry construction, masonry idea file for architects, information center, speaker's bureau, etc.

New Grinding Machine At Porter-Clearfield

The Clearfield, Pa. works of the Refractories Div., H. K. Porter Co., Inc., recently installed a new grinding machine which sizes refractory products to precise, accurate dimensions.

The new machine sizes burned refractory brick from 4½" to 20" in either length or width and will handle brick up to 9" in thickness. Capacity of the machine varies according to the number of faces, mix, etc.

A Sly dust-collecting unit removes dust from the air.



The Leahy® Screen is Easily the Most Efficient On the Job

It takes no fancy talk to prove the merit of the Leahy Vibrating Screen with Flex-Elex® heating of the jacket. Designed especially for the screening of clays and shales, this hard working machine shows its heels to all others in the field.

On the job day and night if needed, it requires fewer service stops, partly because of its ability to keep the mesh dry and wide open for full capacity, accurately sized production — and partly because of mechanical stamina and long screen cloth life. Oversize laminated bus bars connect the transformer to the jacket without the use of troublesome flexible connectors. There are no electrical connections to break and remake when jackets are changed — in a matter of moments.

Leahy screening efficiency is accompanied by utmost economy of both power and maintenance costs. The result is the production of excellent screened products at exceptionally low cost.

For full information, send for Bulletin 16-EH.

THE Leahy SCREEN
NO-BLIND VIBRATING
— offers —
INTEGRATED HEAT SCREENING

THE DEISTER CONCENTRATOR COMPANY
The Original Deister Co., Est. 1906
913 GLASGOW AVE. FORT WAYNE, IND.

Archie Judd Dies

Archie C. Judd, 63, general manager of the Oak Hill (Ohio) Fire Brick Co., died in a Pittsburgh hospital on May 14. He was stricken while attending the ACS meeting.

Judd formerly was with Portsmouth Clay Products Co., South Webster, Ohio, and held a patent on the Ramtite brick manufacturing process.

Lee Bennett Named PacClay Production VP

The appointment of A. Lee Bennett as vice president in charge of production for Pacific Clay Products, Los Angeles, has been announced by President John Fredericks.

Bennett has been vice president in charge of research. In his new job, he will supervise plans, products and production of all of Pacific's facilities, as well as research and engineering activities. He has been with Pacific Clay since 1954.

Brandt Named Research Director for Denver FC

Denver Fire Clay Co. has announced the appointment of William O. Brandt as director of research. Brandt, for the past 20 years, had been with Gladding, McBean & Co. in various capacities.

North American Appoints Schroeder, Moffett

Two new appointments in North American Refractories Co., Cleveland, have been announced by E. W. Valensi, president.

Fred W. Schroeder has been appointed director of research. He'll be in charge of the new Research Center at Curwensville, Pa.

Robert A. Moffett has been appointed director of technical service for the company.

$350,000 Fire Damage at Goshen Brick Co.

Fire of undetermined origin destroyed a 100 x 200' building of the Goshen Brick Co., near Newcomerston, Ohio on May 9. The factory building contained all of the company's brick making machinery.

The company reported plans to rebuild the plant, which employs 112. Office, storage sheds and kilns were undamaged.

Included in the lost equipment was a brand new brick machine which had recently been delivered but had not as yet gone into use.

Sterne Named VP, GM at Birmingham

Leonard Sterne has been elected vice president and general manager of Birmingham (Ala) Clay Products Co. Sterne was named to the position at a recent board meeting.

He has been with the firm, which produces structural tile and brick in addition to chimney and acid-proof brick, since 1955, joining the company as general manager.

Pacific Clay Flower Pot Co. Sold

Pacific Clay Products Co., flower pot plant in Portland, Ore., was purchased in April by Mr. and Mrs. C. E. Berger, of Canby.

The plant has been put back in production with pots coming off the production line of the 73-year old plant. Plant superintendent Herb Fedderson has been with the firm since 1900; the present plant was built in 1928.

Mabley Named NADD Secretary

Thomas Mabley III has been appointed executive secretary for the Nat'l Assoc. of Distributors and Dealers of structural clay products, according to an announcement by President Durwood Boeglen.

Mabley's address will be Box 3585, Washington 7, D. C.

In other NADD news, an effort is being made to set-up a regional organization. A new member roster is being distributed, available to nonmembers on request.

In addition, F. S. Breshears has been named to head the Membership committee, and J. P. Marchioli to head the Public Relations-Promotion committee.

Several new members were added recently, including Twin City Brick Co., Teague Brick Sales Co., Glen-Gery Shale Brick Corp., and Brick Service Inc. of Des Plaines, Ill.

C. S. Finzer Dies

Charles S. Finzer, one of the founders of the former Finzer Bros. Clay Co. in Sugar Creek, Ohio, died May 10 at Dover. He was 79, and had suffered a heart attack three weeks before his death.

The Finzer firm, founded in 1910, was purchased by Belden Brick Co. in 1946. Finzer was retained in an administrative-consulting capacity and was a member of the Belden board of directors.

ACS To Meet In Fall at SCPRF

The fall meeting of the Structural Clay Products Div. of the ACS will be from Sept. 18-20 at SCPRF, in Geneva, Ill., according to an announcement by Wayne Brownell, of Alfred University.

H-W Establishes OSU $500 Scholarship

Harbison-Walker Refractories Co., Pittsburgh, has completed arrangements for the establishment of a $500 per year scholarship in the Dept. of Ceramic Engineering, Ohio State University, Columbus.

The recipient of the scholarship, which may be awarded to start this coming fall, will be chosen by the University of scholarship committee. The scholarship will continue for a maximum of five years. H-W set up three similar scholarships at Penn State several years ago.

Young Racer Promotes Brick

Bruce Deutscher, the 10-year old driver pictured above, displays some of his prize trophies won in various quarter midget races throughout southern California. The "Flying Brickbat" is the name of the car.

Bruce's father, aside from being chief mechanics, is plant manager of the Hancock Brick Co., Highgrove, Calif.

Green Sales Below Last Year's Quarter Record

Net sales for the three months ended Mar. 31, at A. P. Green Fire Brick Co., were $7.4 million this year, compared to last year's record high of $10.8 million.

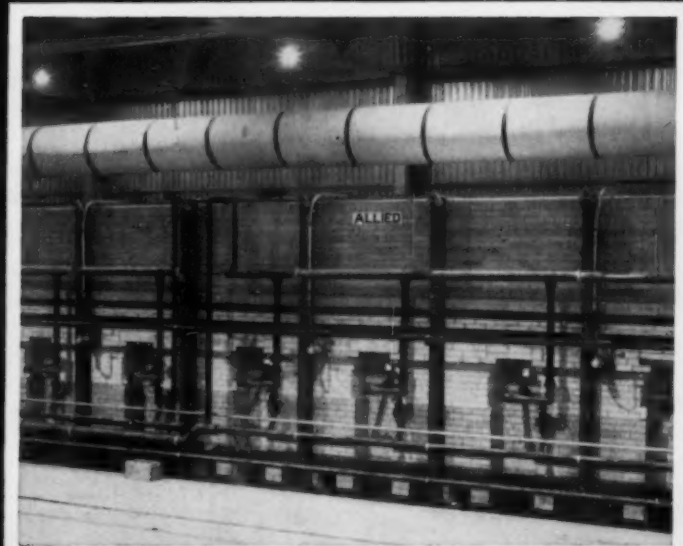
Net income for the 1958 period was $101,695 as compared to the 1957 figure of $932,291.

In his report to stockholders, President W. S. Lowe reviewed the recent merger with Standard Fire Brick Co., the retirement of Herbert Plunkett as executive vice president and the appointment of L. J. Miller as his successor.

Lowe reported also that the company has no plans for large capital expenditures in 1958.

Harvey R. Hiller has been appointed assistant district sales manager of Harbison-Walker Refractories Co. Chicago district. Hiller, with 30 years of refractories sales experience, has been with H-W since 1955.

ANOTHER **ALLIED** KILN INSTALLATION



KAISER CHEMICALS

KAISER ALUMINUM & CHEMICAL CORPORATION

COLUMBIANA, OHIO

Kaiser Chemicals is widely recognized as a supplier of basic refractory products to the steel, glass, cement and copper industries. Their selection of Allied equipment means that only the best has been secured. The wisdom of this policy is demonstrated by the satisfactory operation and high-quality products made in the company's basic refractory plant at Columbiana, Ohio.

FERRO

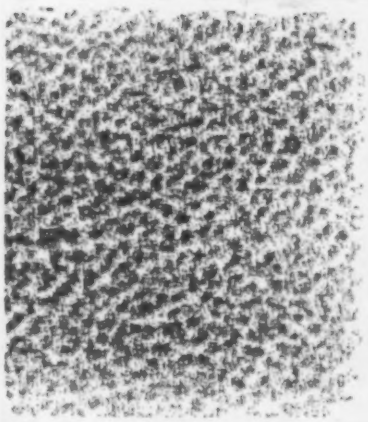
Allied Engineering Division

FERRO CORPORATION

4150 E. 56 STREET · CLEVELAND 5, OHIO

Hommel

COLOR SELLS BRICKS!



It takes rich, vibrant color to sell bricks . . . to create a contrast in building construction that distinguishes the job.

Hommel colors have constant uniformity. They are solidly resistant to all types of weather . . . quality formulated to increase the life span of modern bricks.

Hommel has a complete range of colors . . . for any type of application . . . staining, glazing, engobe or sand-blasting. We stand ready to confer with you on firing ranges, types of clay structure, and color application methods. Your Hommel representative is always ready to help solve your technical problems.

THE **O. HOMMEL** COMPANY

PITTSBURGH 30, PA.

WEST COAST · 4747 E. 49TH STREET · LOS ANGELES

Dept. BCR—658

THE STATE OF INDIANA

Varied Product Line; Busy Building— That's Indiana

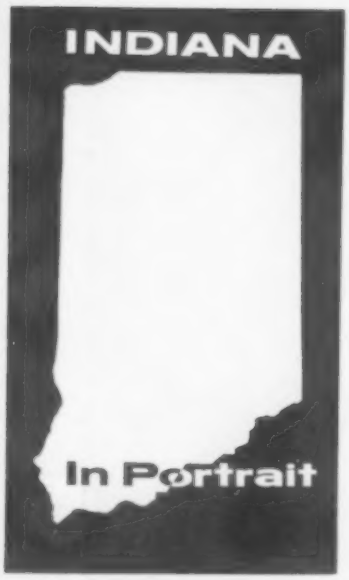
In the fourth of our surveys of state activity, preceded by Texas-1955, North Carolina-1956, and Missouri-1957, this year in word and picture we report on Indiana.

Producing a wide range of products — refractories, brick, sewer pipe, lightweight clay aggregate, drain tile, facing tile and many specialty items — the state reflects to a degree the entire clay products industry.

Among the plants that range from small to giant in size, a large share of the industry is busily re-building, modernizing, expanding.

The first section of the following pages shows the range in products of the industry, the building and expanding, and the equipment used in a picture report.

The second part, Indiana Plant By Plant, offers capsule descriptions of the plants, with information divided into Highlights, the most interesting or unusual aspects; and Specs, the "Specifications" or operating procedures of the plants.

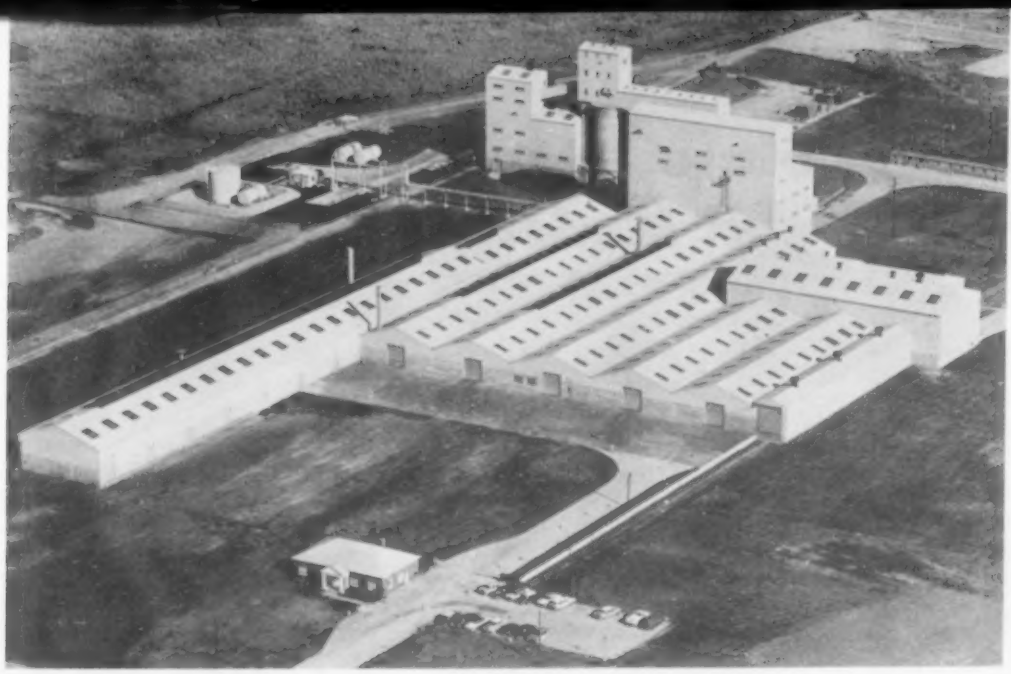


State Produces Full Range of Products

BRICK: Many plants make buff brick, red in variety of textures, sizes and shades. Here is strapping operation at U. S. Brick.

CLAY SEWER PIPE: One of the biggest of the state's pipe plants is the Amvit plant in Brazil, who recently introduced ceramic glazing.

LIGHTWEIGHT AGGREGATE: Plant pictured here, in Brooklyn, was recently purchased by Hydraulic Press Brick. Plant has added third rotary kiln since operation began in 1954.



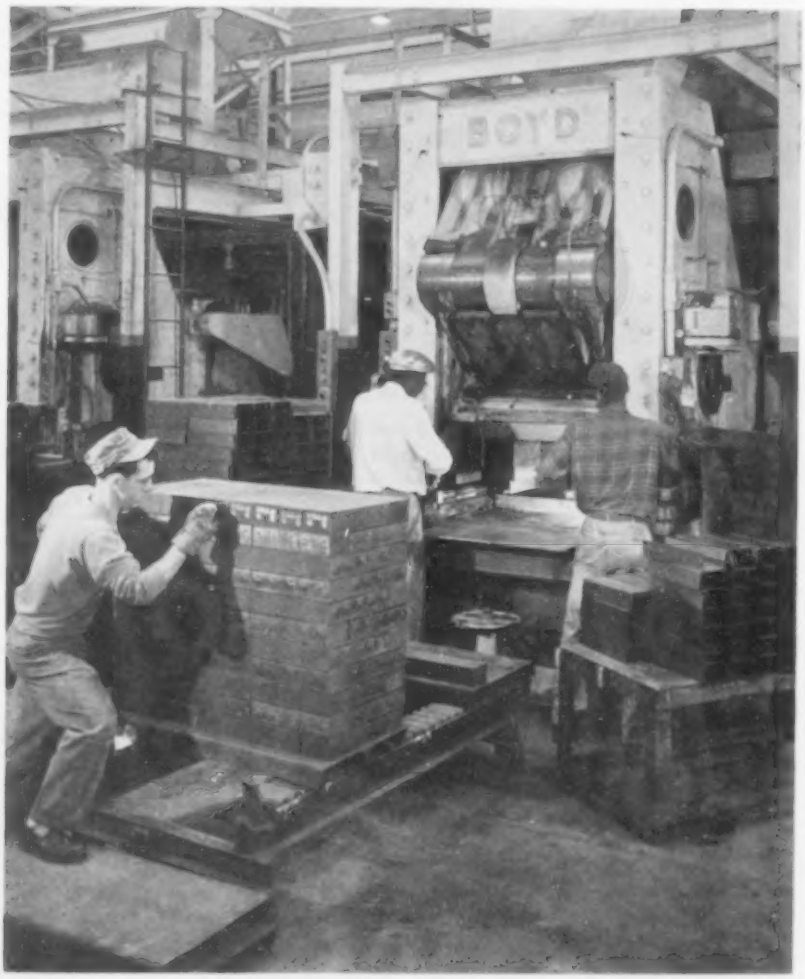
REFRACTORIES: Concentrated in Gary-Hammond region near steel centers, two huge new plants have opened this Spring including the giant Harbison-Walker plant shown in this aerial view.

GLAZED FACING TILE: In addition to many wall tile plants, Indiana has one of the largest facing tile operations at Arketex, in Brazil. Company has three plants with total of 13 tunnel kilns used among the three plants.

DRAIN TILE: Plants making drain tile include one here, Majenica, using an Ohio tunnel kiln.

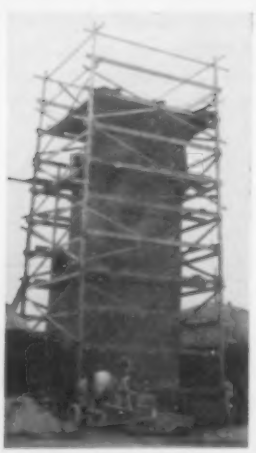
State Busy Building and Modernizing

Rebuilding of a periodic kiln at Dee in Bloomingdale. Plant plans new kiln.



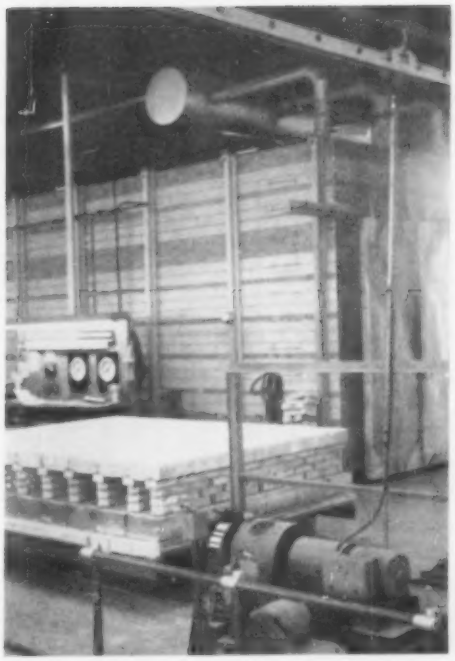
At right is a view of the press facilities at the new General Refractories plant in Gary.

Two of the new 40' periodics at Amvit-Crawfordsville; note also Robinson Hi-Draft stacks, put in at time of kiln building.

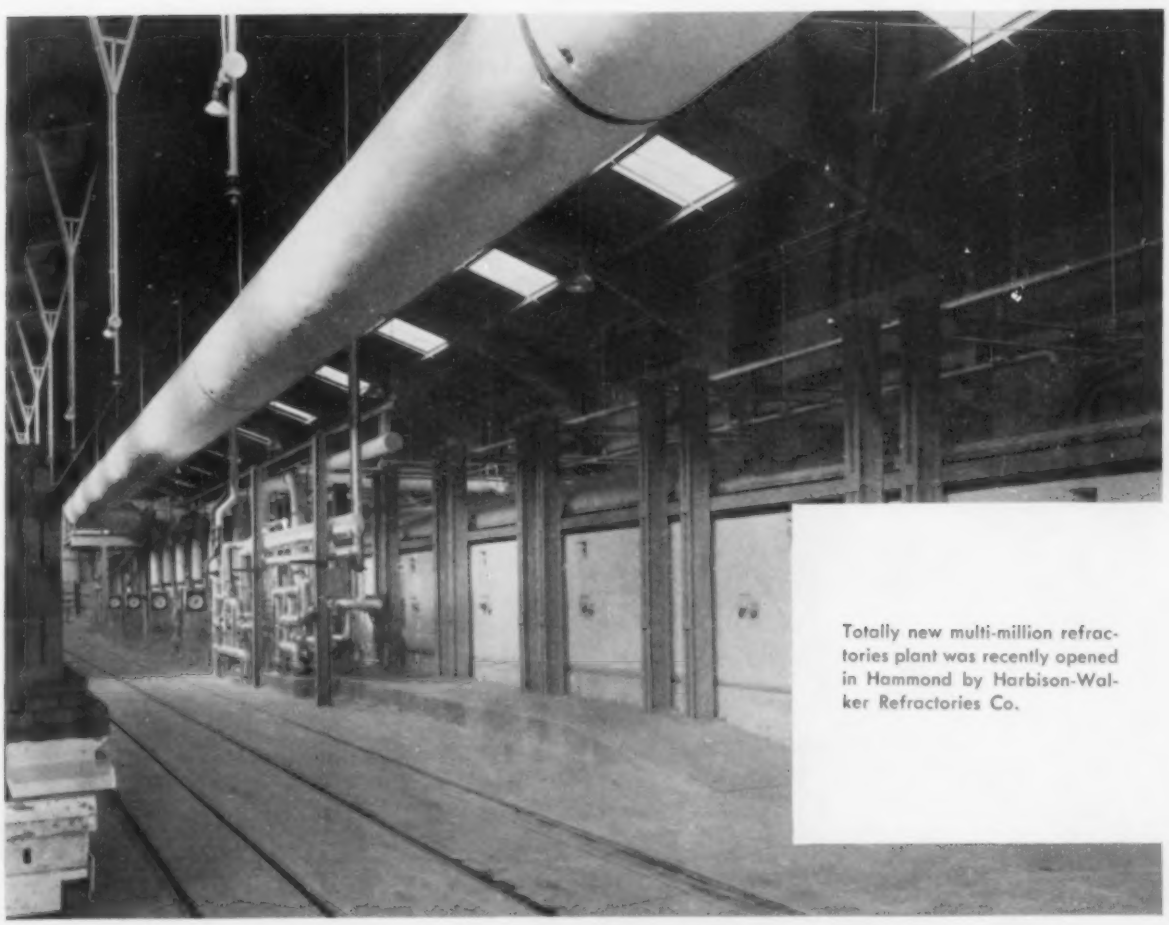


Stack building going on at Bloomfield's plant.

Almost totally rebuilt, Clay City at Montezuma rebuilt kilns, built new sheds, garage, office; switched to gas; hope sometime to put in a tunnel kiln for their buff-brick operation.

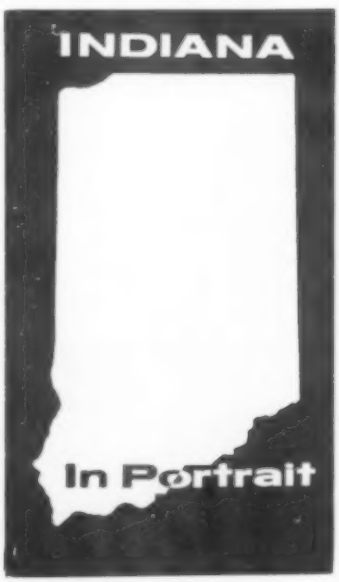


Another good-as-new plant is that of Amvit at Bravil. Here's partial view of new Allied tunnel kiln.



Totally new multi-million refractories plant was recently opened in Hammond by Harbison-Walker Refractories Co.

Glazed facing tile is here being sprayed at one of the three Arketex plants.



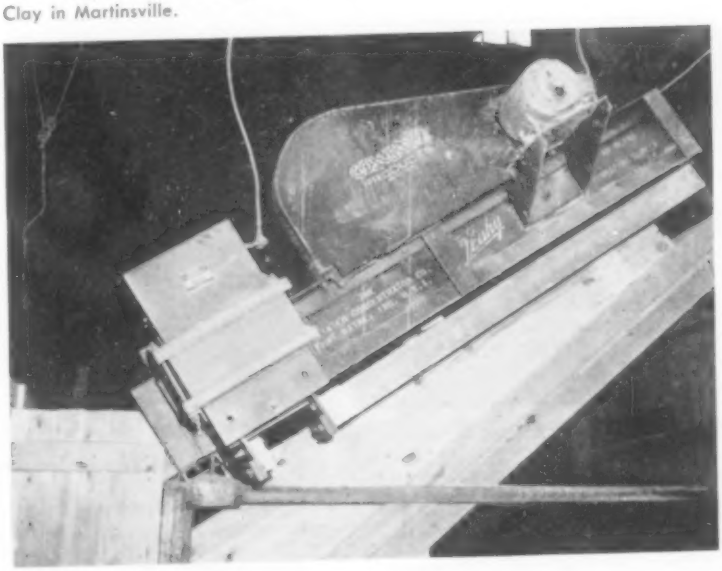
At left is the fan on the roof of the new dryer set-up at Cayuga.

Rockfacer unit at right helps reclaim seconds for Brooklyn Brick

Forks are widely used for handling: above is at U. S. Brick, below at Cannelton Pipe; on left page, in view with Rockfacer is fork with Bickerstaff attachment. Note LP gas tank on the Hyster fork at Cannelton.

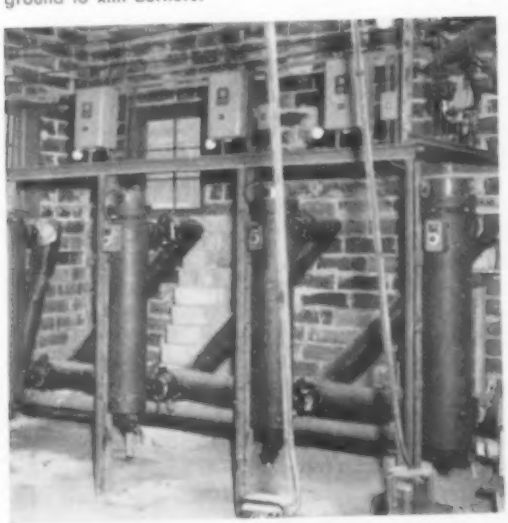
Pipe handling equipment used at Cannelton Pipe.

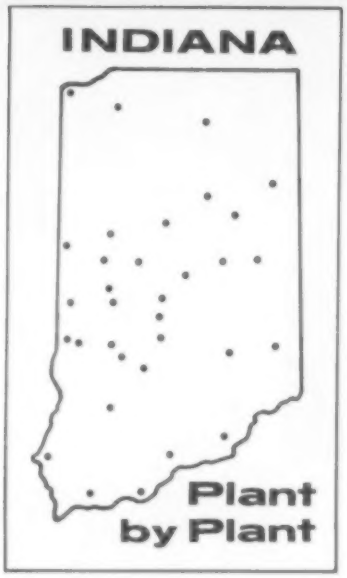
Four Leahy screens are used at Adams Clay in Martinsville.



Ayer-McCarel pre-heats oil with these heaters, then pipes underground to kiln burners.

An Eagle shale planer is used in pit at Hydraulic Press brick plant in Veedersburg. Indiana Drain Tile and Brooklyn Brick also use planers.





Capsule descriptions of operation and equipment at each Plant in the state. Highlights covering most interesting features; Specs covering details or "specifications"

Insulating brick crown at Mecca.

Mecca Likes Slip-Seal, Hopes for Tunnel, Gas

Clay City Pipe Co., Mecca

HIGHLIGHTS: Well-liked by this plant is their 2-year-old Star Foundry Slip-Seal equipment, installed in 40x80' building. Unit is extra-long, at 60'; double line with 4" and 6" pipe poured on one side; 8" on the other side.

Plant hopes eventually to convert from coal to gas; would like a tunnel kiln when modernization begins. Has added new boiler room with 300 HP motor for more efficient, uniform drying. Use of B&W insulating brick on one kiln crown saved 15 to 20 tons of coal per burn; plans to add insulating brick when rebuilding other crowns.

SPECS: 85-90 men produce some 18,000 tons annually of 3 to 24" pipe in 2-3-4' lengths. At present, 4' pipe is made only in 10" and up. Plant uses 12 34' periodics, 4 are 36'; equipment includes 2 Leahy 4x5 screens; McLanahan 18x30" crusher; Lehigh take-off machinery; 2 Stevenson, 1 American 9' dry pans; two 9' Stevenson wet pans; Toronto press with Star Foundry de-airing unit. Company uses 5 Hyster fork lifts for handling; entire yard is paved.

Plant manager is Hal Cummings, with Paul Insley the superintendent.

Lightweight Aggregate Plant Adds Third Rotary

Hydraulic-Press Brick Co., Brooklyn

HIGHLIGHTS: Hydraulic-Press Brick Company purchased plant in late winter from Midwest Aggregates, Inc. Installation of a third kiln has been completed. A rail siding has just been put into service. Plant was designed by McNally-Pittsburg. The productive capacity is in excess of 500 cubic yards per day. Interesting point is abundant shale deposit which stands 250 feet above plant site

SPECS: Haydite expanded shale aggregate, made from shale mined from pit adjacent to plant, is made with equipment such as the Eagle Senior double-roll primary crusher; McNally-Pittsburg double-roll secondary crusher; rotary kilns fired with gas. Plant is well located to marketing areas being some 20 miles away from Indianapolis and having rail facilities to ship to other Indiana points as well as Illinois, Michigan and Ohio. Plant superintendent is Chris Kottkamp. Richard W. Finn is in charge of sales

Heavy Modernization Program Completed by Martinsville

Martinsville Brick Co., Martinsville

HIGHLIGHTS: A thorough program of improvement and modernization has been taking place at this plant, as reported in the June, 1957 issue. Work includes pouring of concrete for hard-surfaced yard; rebuilding of periodic kilns including stacks; addition of new Hauck burners for better firing; revamping of production line set-up; addition of Rockfacer machine to make premium brick out of culls; switch to complete kiln loading and unloading, handling by fork truck, development of ideas to speed up output.

SPECS: Plant produces approximately 60,000 brick per day. Plant formerly, before modernization, made red brick; now having success with buff line made from purchased clay. Some 14 periodics are used, gas firing. Equipment includes a Meco crusher, International and Raymond dry pans; Star Foundry screen; International pug mill with Steele cutter. Fork trucks by Towmotor and Clark are equipped with Bickerstaff units.

Plant is a subsidiary of Poston Brick & Concrete Products of Springfield, Ill. Plant manager Thomas Fleming is vice president of Poston Brick, treasurer of Martinsville, with Emmett Poston as president.

Other plant modernization has included complete overhaul of electrical system; yard communications set-up; building of all-weather loading sheds; construction of a garage; plans eventually call for building of a new office and another periodic kiln.

Roman Brick Profitable For Boonville Brick

Boonville Brick Co., Boonville

HIGHLIGHTS: Owned by the Richards brothers, this plant is one of three. Clay is trucked into the plant, made into Roman brick clusters, and fired in periodic kilns. Brick are broken from the cluster after removal from the kilns and put into shipping cubes for storage or shipping.

SPECS: The Roman clusters are made on a small machine, cut on a manual-powered cutter, dried in tunnel dryers. Recently rebuilt dryers incorporate gas-fired dutch ovens on sides with heated air forced into tunnels by fans; recirculation is maintained with a large number of 1/3-hp fans. A new bee-hive kiln gives the plant a total of four, all gas-fired. Two Hyster forks handle up to 6 million pink romans a year.

Additive, Oil Heating, Product Variety at A-M

Fork handling at Ayer-McCarel.

Ayer-McCarel Clay Co., Inc., Carbon

HIGHLIGHTS: Use of Additive-A; addition of an oil pre-heating and pumping unit; production of a huge variety of complex specialty shapes are features of this plant just outside Brazil. Output includes such items as pulp digester tank blocks, filter blocks, flashing blocks, and a special new 4x12x16" silo stave block. About one third of production is in facing tile. Pre-heated oil is pumped underground to the 10 32' periodic kilns, which use Hopkins fans and burners.

SPECS: Plant equipment includes Northwest combination 2½ yd. dragline at pit plus Cat D-8 bulldozer; Bonnot 9' dry pan; Bonnot machine with Steele cutter; 18 tunnel steam dryer, 243 car capacity; Hyster forks, 3 used.

Interesting point includes fact that truck shipment has been made as far as Massachusetts. Plant wants to build clay storage bins. Present production is 100 tons per day. President is Charles Ross; John Hutchinson is secretary-treasurer; John Egloff, superintendent.

Tunnel Kiln Fires New Ceramic Glaze

Supt. Charley Wilson at right.

American Vitrified Products Co., Brazil

HIGHLIGHTS: Newest addition to Amvit's largest sewer pipe plant is a 400' Allied tunnel kiln fired with natural gas. Taking dried pipe from chamber dryers, pipe are ceramic glazed before being set on 8x10' tunnel kiln cars for firing. Ceramic glazed, with a color near the natural color of the clay, the pipe are much stronger than salt glazed pipe of the same wall thickness.

SPECS: Plant was rebuilt in 1925 after burning and has been modernized frequently since. Brazil area clays are blended to form the body with extrusion being done on vertical steam presses for the larger sizes which go to 36".

The smaller sizes are made on Bonnot horizontal extrusion machines with Pearne & Lacey equipment. Besides the new tunnel kiln, the periodics, gas fired, are still being used.

Amvit pioneered the use of poly vinyl chloride joints and uses a batch system for the application of this special joint.

Payloader cleans up at Brazil clay.

Automatic Grinding, Electronic Feed Control at Brazil Clay

Brazil Clay Co., Plants #1, #2, Brazil

HIGHLIGHTS: Two separate plants operating in Brazil use common clay deposit, pit equipment. Plant No. 2 has high efficiency grinding with use of automatic control of pre-crushed clay fed to rim discharge grinder; system uses amperage draw on grinder motor to control reciprocating feeder. New Bonnot brick machine, Steele cutter, cross-belt hacking are other features.

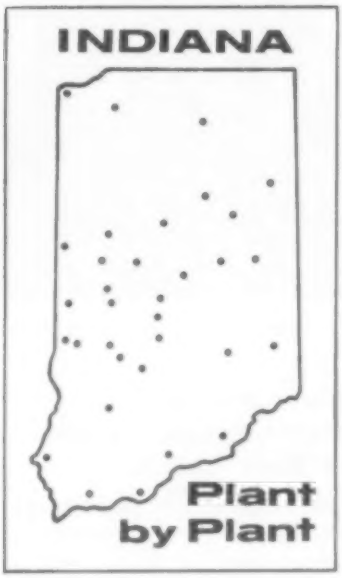
Plant No. 1 sets all fired brick on wooden pallets. Uses a number of Bost equipped periodics for rigid control of reducing conditions to produce shades of brown and tan from the normal buff-firing clay.

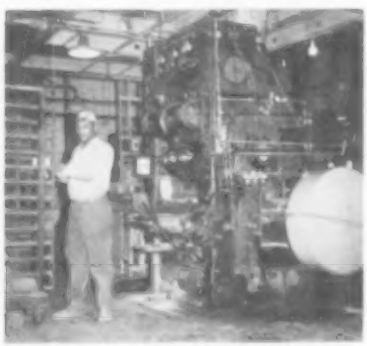
SPECS: Plant No. 1 uses Hough front end loader to fill McLanahan preliminary crushers; has three Bonnot pans, American No. 302 pugger and No. 290 extruder; Freese C-27 cutter. Barium carbonate is used. Recovery from waste heat dryer approaches 100 per cent. Production monthly about 1.5 million; however, 19 periodics can handle twice this amount; kilns are coal fired.

General superintendent is George Barnhart, in charge of manufacturing at both plants.

Plant No. 2 makes different sizes in buff and flashed buff colors; also uses Hough Payloader, McLanahan crusher. Also has Cat tractor and Stevenson grinder. Radiant heat dryers dry brick in 48 hours; 12 beehives are used, all coal-fired. Pallet handling is used here too. Capacity at No. 2 plant is million a month of standard size, though large amount of oversize is made.

Leo Girton is the plants' owner;





Three Tunnel Kilns Used at Harbison-Walker Plant

Harbison-Walker Refractories Co., East Chicago

HIGHLIGHTS: With original tunnel kiln installed in 1928, total of three tunnels are now used at this plant, in addition to periodics. Thousands of different shapes of silica brick are made, with customers being steel plants and by-product coke ovens.

SPECS: Raw material comes in by rail, then reduced by dry pans, screened, placed in storage bins. Production needs are drawn from storage, mixed with additives in muller mixers, delivered to presses. Complicated shapes are hand-molded, with simple shapes made on the Boyd presses. Presses have "pickers" that reach in to remove fragile wet brick.

Plant is operated by Julius Dull, superintendent, and Joe Dusza, assistant superintendent. Constant improvements have kept plant up-to-date. Currently new handling equipment and larger mixers are being installed.

New Multi-Million HW Plant Begins Operation

Harbison-Walker Refractory Co., Pittsburgh

HIGHLIGHTS: Completely new from the ground up, the Hammond plant is producing magnesite, chrome and chrome-magnesite brick. Highly automated in all departments, the plant fires with their tunnel to 3000 deg.

Chemically bonded brick is encased in metal on nearly-automatic machinerey. A picture story on this plant appeared in the April BCR.

SPECS: Raw material, shipped by rail from Michigan and from the Philippines by boat, is crushed to 1½" max. size in two Traylor crushers; dried in Ruggles Cole rotary dryer; elevated to concrete silos. Final size reduction is done on two Chambers dry pans, two Allis-Chalmers ball mills. Batching done in Simpson Mix-Mullers, followed by fork truck delivery to press line.

Seven Boyd presses are used, with two set on tunnel kiln line, five set up for chemically bonded brick. H-W designed tunnel uses pre-heated combustion air; is heavily insulated; uses natural gas. Clark, Hyster forks move dryer cars to and from press line. James Coffman is plant superintendent.

Rockfacing and Strapping New Developments at U. S. Brick

U. S. Brick Co., Tell City

HIGHLIGHTS: Use of 500 packs increasing in order that the contract carrier can use Superlites to load and unload trucks. Damaged brick being salvaged with a Rockfacer. One of first Indiana plants to fire with gas.

SPECS: Surface clays are mined with a Traxcavator moved to storage with dump trucks and blended to secure uniform condition. Thirty days' supply of clay is held in covered storage. Clay is broken up with a disintegrator, passed through smooth rolls and passed on conveyor to Steele No. 30 brick machine. Steele cutter used with off-bearers hacking onto dryer cars. Four beehives and two large down draft rectangular kilns are used to burn about 30,000 bricks a day.

Covered storage is available for several hundred thousand of the red and red flashed brick produced. Acme Steel Strapping jigs used to make up the 500 pack brick packages now being introduced. Truck shipments in a 300-mile radius are made on about 75 per cent of the production.

General manager of the operation is Winfield Eckley. Vice-president of the company is Charles F. Herrmann.

Amvit Plant Re-building, Modernizing Steadily

American Vitrified Clay Products Co., Crawfordsville

HIGHLIGHTS: Three new 40' kilns, built, plans for a fourth one, installation of gas for firing, Robinson Hi-Draft units for draft control plus general improvement and working methods are part of the modernization work done at this plant. Work is fairly recent, with the gas added in '54; the first 40' kiln coming in '55 Interesting points include: Plant-designed periodics using insulating brick and special Amvit-made block for construction; use of Globe Dextrine Gum by Corn Products Refining Co. for binder plus use of barium carbonate with both added in solution; superintendent very happy with Wichita air clutch on pug mill. Plant makes flue lining only.

SPECS: Equipment used includes F-R-H #12 put in during 1954; gas fired kilns use Maxon burners; Robinson Hi-Draft to be used completely when kilns all rebuilt, with 42" fan preferred; Raymond dry pan with automatic cut-off switch on clay supply; Star Foundry 4x7" heated screens, two used; Meco disc feeder; Minneapolis-Honeywell recorder. Dryer has 10 tunnels holding 15 cars each, using 24-hour drying period. Dryer does not use waste heat but rather heat supplied by two gas burners.

Superintendent Fred Overpeck came to the plant in 1952. Other personnel includes Everett Carmean, assistant superintendent; Carl Thompson, yard foreman; and William Walker, shop foreman.

Complete New Grinding, Drying at Cayuga

Cayuga Brick Corp., Cayuga

HIGHLIGHTS: Modernization at this plant has proceeded section by section, with a $64,000 grinding room as the first big step, followed by a dryer change which featured installation of a Robinson recirculating system, put in in 1957. The grinding change, in 1954, included an entire new set-up from crusher to screen, in a compact, straight-line layout. Equipment used here includes an American 9' pan; two Leahy 4x8' screens. General Manager Hubert Nichols is very pleased with his dryer change, which gives him much better control and in uniformity of drying, equal distribution of heat.

SPECS: Plant, making a million red and buff a month, uses 10 30' and one 32' periodic kilns. Product includes normans, romans, SCR and standards; new shades are to be added, plus a line of patio brick. Cayuga also makes drain tile in sizes from 4 to 8".

80 Tons of Tile Per Day at Kalamazoo

Kalamazoo Clay Products Co., Carbon

HIGHLIGHTS: Some 80 tons per day of facing tile in different sizes is made using eight 32' coal burning periodics. The plant is owned by Kalamazoo Tank & Silo Co., of Kalamazoo, Mich.

Steady Improvements Made by Poston-Herron

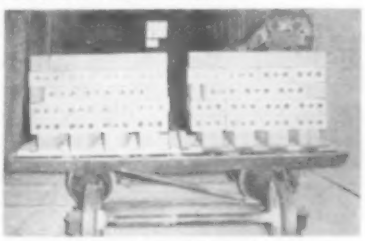
Supt. Bill Poston by stack booster.

Poston-Herron Brick Co., Attica

HIGHLIGHTS: A steady job of improving their plant is being done at Poston-Herron. Plant does some strapping with Signode equipment, with about 20 per cent of output packaged, using the 100-pack. Experiments are being made with stack booster fans. Plant puts in a new bottom in periodics at rate of one kiln a year with mixture of bottoms used. Celebrated 50th anniversary in 1957.

SPECS: About 35,000 brick are made daily, using 11 30' periodics, red brick only. Pit uses Insley gas powered shovel; blasting is done before; Western dump cars move clay some 1,000' to plant. Equipment includes 9' Bonnot dry pan; Leahy 4x6' screen; Freese cutter and brick machine. Dryer has 13 tracks, holding 12 cars each; waste heat operated with oil burner serving as auxiliary. Kilns burn coal. Products include mingled shades in red, standard and modular, sand face, rugg, matt, with 80 per cent of shipment by truck. Plant operators are Floyd and Irvin Poston, with Bill Poston as superintendent.

13 Kilns Converted to Fire with Gas



Tight pattern at Terra Haute.

Terre Haute Vitrified Brick Co., Terre Haute

HIGHLIGHTS: Hauck gas firing system uses aspirating burners as local gas supplier would not guarantee pressure. Blowers for air supply are portable and can be moved from kiln to kiln. Dryer cars are set with fork truck cubes and fork trucks set unhandled brick from cars to kiln and from kiln to storage.

SPECS: Both red and buff brick are made. Red from local shale and buff brick from clay brought in from the Brazil area. Grinding setup includes a McLanahan for preliminary crushing and two Bonnot pans. Tyler screens are eight mesh, pass fines to bin.

Chambers brick machine and Steele cutter used to make both standard size and norman size brick. Offbearers set brick into a rather tight burning cube. Drying takes three days after which cubes are forked into kilns. After firing cubes are drawn intact with inspection and sorting done only when cubes are taken from stock for shipment.

Constant Changes Made In Product to Meet Demand

Hydraulic Press Brick Co., Veedersburg

Hydraulic Press Brick Co., Crawfordsville

HIGHLIGHTS: Two plants, some 20 miles apart, are both managed by R. Z. Strouse; keynote at both plants is that product lines are constantly changed to meet changing demands of customers. Veedersburg plant uses Eagle shale planer in winning clay for their red brick. Crawfordsville plant makes buff and red, buying their buff clay.

SPECS: Veedersburg superintendent W. Ross Harper oversees production of 15 million a year from 13 28' periodics. Equipment used includes two 9' Bonnot drypans; Brewer pug mill with Steele brick machine; Steele cutter. Ten track dryer holds 21 cars in each tunnel. Periodics burn coal.

Assistant manager at Crawfordsville is R. V. Kaeser; superintendent is John Woodal. Buff and mixed, standards and normans are fired in 10 coal-burning Yoder rectangular kilns; Rodgers Engineering dryers are used, 20 tunnels each holding 19 cars. Other equipment includes use of 6 Hysters, with 2 Bickerstaff-equipped, 4 Schmidgall equipped. Plant uses primary Meco crusher; two Stevenson 10' dry pans; Freese pug mill; combination Freese-Chambers brick machine. Output is 15 to 20 million annually.

Two Pits, Two Shovels Serve Affiliated Plants

Jackson Brick & Holloware Co.

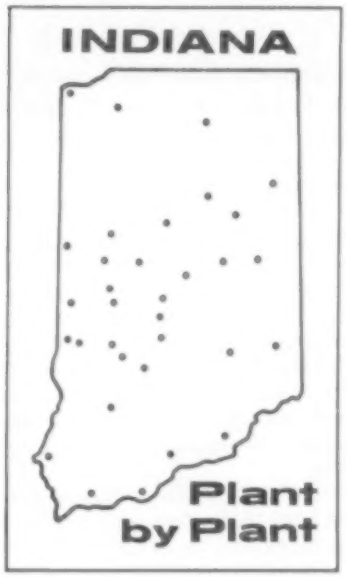
HIGHLIGHTS: Plant specializes in all sizes of drain tile and structural tile, while Medora Brick with same ownership produces brick. Clay mined from two pits and blended in large covered storage in order to secure good working properties.

Destroyed by Fire, Rockport to Be Rebuilt

Rockport Brick Co., Rockport

HIGHLIGHTS: Struck by fire immediately after installation of a new Steele cutter and recent addition of a Bonnot extruder, this plant was left with two new periodics in addition to three older ones — but no mill room or dryer.

SPECS: Plant plans to rebuild along earlier lines.



Steel jacketed kiln at Francesville.

Insulated Kiln, Waste Heat Dryers Save Fuel

Francesville Drain Tile Co., Francesville

HIGHLIGHTS: Steel encased insulated kiln is two feet bigger on the inside due to only nine inches of brick work in kiln walls, giving an increase in capacity of 25 per cent and a fuel saving of 30 per cent per ton of ware. New clay storage building 40x 105' eliminates shutdowns due to bad weather.

SPECS: Six feet of surface clay is won with an Insley backhoe and trucked to plant. International tractor with loader used to put clay into Brewer screw feeder and initial preparation made with compound crusher, Brewer conical rolls. F-R-H extruder used to make 4" to 16" drain tile. Fate cutter and dryer cars.

Ten tunnel dryer takes Meco dryer cars and is supplied with heat from the cooling kilns. Supplementary heat supplied with extra furnace, all oil fired. Portable high pressure air blower moved from kiln with oil burners as kilns are filed and fired. Tile moved from kilns on tile carts to storage.

Owner and operator since 1923 is Earl C. Overmyer. His son, Richard, is now plant manager. Plant also handles other drainage supplies.

Tunnel Kilns Planned In Brooklyn Modernization

Cross-belt hacking at Brooklyn.

Brooklyn Brick Co., Brooklyn

HIGHLIGHTS: One Ohio 164' tunnel kiln will be added this summer, with others tentatively planned for future years, at Brooklyn. The present 14 30' periodics burn gas, with more than 30 types of brick made including buff and variegated shades. A shale planer is used in the pit; plant recently bought 360 acres of red clay for future supply. General Manager Elmer "Tug" Davis reports a planned revamp of the grinding set-up with plans for adding batching-blending equipment. Plant has Rockfacer machine that is operating very successfully.

SPECS: Equipment used includes Star double heated screens, 4x8'; Bonnot mill, Steele cutter; Meco stack booster fans; Bickerstaff-equipped Towmotor fork lift trucks.

The plant hacks across cars, using a device to speed this process by guiding the setting pattern of the hackers; has a 14-tunnel, 21-car per tunnel dryer using waste heat with a booster. Plans call for more yard paving, building of loading sheds; have a new Cat HD-8.

Among products made are SCR, romans, normans. Oliver Webb is president, Mrs. Madge Webb is secretary-treasurer, and Harold Gibbs is superintendent.

Plant uses Clearfield Maximuller which Davis likes very much and prefers to dry pans.

Clay City Plant Almost Completely Re-Built

Clay City Pipe Co., Montezuma

HIGHLIGHTS: Old plant, formerly making fire brick, has found new success with line of high grade buff brick. Plant has been worked over extensively, with gas added for firing; new 52x210' brick storage shed and 52x60' storage shed; yard paving so almost all operating is paved and sheltered; clay storage shed, office building newly built; new 20x40' maintenance garage; rebuilt walls, crowns on some of the 38' periodic kilns. Plant manager and sales manager William Conaway hopes to add Robinson Hi-Draft to kiln stacks; eventually would like a tunnel kiln. Plant modernization was based on arrival of gas in 1954.

SPECS: Annual output is between 8-10 million, with 6 million in the buff line. Employment has been running at about 25; manpower has been reduced through mechanization, packaging of brick, fork handling, use of gas.

Equipment includes well-liked Universal 3x6 screen; Syntron feeders; one American, one Chambers cutter; Meco crusher; American pug mill for buff brick, Bonnot Challenger for the fire brick line; Roura dump hoppers handle scrap, etc.; three Hysters with Bickerstaff attachments; Stevenson 9' dry pan.

Kiln to Yard to Truck By Fork Truck

Bloomfield Brick Co., Bloomfield

HIGHLIGHTS: Owned by Frank A. Lenning, Indiana Secretary of State, Bloomfield Brick Co. uses a supplementary drypan to grind tailings from the screen during bad weather to maintain production. Machine room is laid out so that dryer cars pass beneath offbearing belts at 90° angle for easy hacking. After drying in conventional tunnel dryer, brick are

Supt. Sparks of Bloomfield.

removed from cars and put into burning cubes. These cubes are moved to the 32 foot, solid bottom beehives with fork trucks and after firing removed the same way and put into storage or onto trucks or railcars with the cube intact.

SPECS: Specializing in red and flashed red colors, including zinc, plant uses ½ yard Lima shovel in pit on the plant proper and truck to put shale into McLanahan crusher for preliminary crushing in front of drypan and screen. Steele brick machine and cutter in millroom have a daily output of some 50,000 brick. Twelve kilns are used with coal as the fuel. Plant superintendent Wayne Sparks and office manager Grace Brock are in charge of day to day operation.

New Gary Plant Makes Magnesite-Chrome

General Refractories Co., Gary

HIGHLIGHTS: Recently completed, this plant manufactures Steelklad basic brick from magnesite and chrome ore. These bricks are chemically bonded so that no kiln of any kind is needed. The facilities are located on the edge of Gary, in one of the major steel producing areas of the country, giving the plant top access to their customers.

SPECS: Magnesite and chrome ore are brought into the plant by rail, unloaded and reduced in size with gyratory crushers, dried with large oil fired rotary dryers if wet and then placed in bins.

Further size reduction is done with a Chambers dry pan and an Abbey three-roll mill. Raw materials are screened to specified sizes and stored for future use. When production orders are issued, materials of proper size and proportions required for that order are taken from the bins and mixed in muller-type mixers.

Sheet steel for plating is brought into the plant, cut to size on shears and blanks, cut and bent on a brake. The steel plating is placed in the dry presses in the mold; the brick mix, previously placed in the machine hopper, is fed by the press, and the formed Steelklad brick are ejected.

Offbearing the units to steel pallets, which are transported then to dryers, completes the manufacturing process. Following drying, brick are ready for delivery. Plant superintendent is David Remer, Jr.

Selective Mining, Soda Ash Use Enhance Commons

National Brick Co., Munster

HIGHLIGHTS: Production at the rate of 240,000 brick per day from one brick machine, plus a kiln shed 1,300' long, indicate the size of this operation making common brick for the South Chicago area. Unattended electrified mine cars move surface clays more than a mile from pit to plant. The cars use third-rail power; cog wheel and a rack on incline lets cars deliver to loading point unattended.

SPECS: Clay is dug from two strata by Link-Belt dragline. Two sets of double smooth roll mills are used in crushing; first removes rocks, second crushes any small pieces left from first.

Plant superintendent is Jack Oehmke. Brick treated to increase the pink color enjoy a price advantage in the market.

340' Allied Tunnel Used at Adams Clay

Adams Clay Product Co., Martinsville

HIGHLIGHTS: A 340' Allied tunnel kiln, installed in 1947, is used along with 12 32' periodics by Adams in production of some 32 million brick a year, both in red and buff.

The plant also has a double-pugging set-up, using one F-R-H and one Freese machine, with a Steele cutter. Four sources of clay are used; buff clay in purchased.

SPECS: Eight of the 12 periodics burn coal; the other four burn gas. Equipment used includes 4 Leahy screens with Unilec units; three dry pans, American 9', Stevenson 9', Clearfield 10'; Meco transfer car and stack booster fans; a Syntron feeder is used for adding barium carbonate; McLanahan crusher.

Plant president is Jim Cunningham; superintendent is L. D. Davis.

LPG Fired Tunnel Used at Majenica Tile

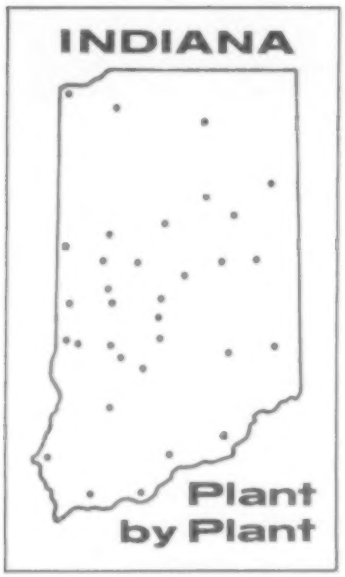
Majenica Tile Co., Majenica

HIGHLIGHTS: Family controlled plant uses Ohio tunnel kiln to supply drainage contracting division of operation with drain tile. Seven ditching machines are operated by Company with about half of tile consumption purchased from other producers. Tile moved directly from kiln car to truck for delivery at job sites.

SPECS: Clay is taken from surface of 240 acre supply and hauled to plant with trucks after being dug with drag line. Brewer conical rolls feed material into 75 H.P. Bonnot combined extruder. Tile formed under 24" vacuum and cut with a Fate tile cutter. Separate two track dryer takes tunnel cars loaded with tile and discharges dry tile in 36 hours.

Tunnel kiln is 145 feet long, is set up on a 32 car per day schedule. Cars are 3½ foot by 6 foot and will hold 170 five inch tile set three high. Maturing temperature is 2,000°. Setting rings are used to reduce cracked tile on the bottom layer. Dryer uses recirculation and humidity control. No recirculation used in kiln.

Plant owned by Joseph Mills with son Louis in charge of tile production.



13 Tunnels, 3 Plants Keep Arketex Output High

Arketex Ceramic Corp., Brazil

HIGHLIGHTS: Arketex operates three plants in Brazil, each to some extent specialized. Glazed tile is the only product, with quality control developed to a high degree. Founded in 1937 by then Lieut. Governor of Illinois, John Stelle, firm took over the plants of Clay Products Co., which had been making conduit.

Plant No. 1 was discontinued; a Plant No. 4 was purchased later on. The company operates 11 circular tunnel kilns and two regular tunnels. All burning is done in tunnels; most machinery has been replaced.

SPECS: Arketex uses two clays and a grog blended to make the fine-grained tile for which the plant is famous. Clay, brought to storage by truck or rail, is put through McLanahan crushers and Chambers dry pans for final reduction to size and screened, with fines stored in bins.

Bin material is drawn with disc feeders, mixed in rigid proportions, and delivered to F-R-H combination de-aired machines. Plant No. 2 has two extruders with one line using a Steele No. 18 cutter; the other a manual cutter. Ten-foot wide dryer cars are set five tile high with 6T tile. Setting is on pallets on cars; three days drying follows after which the tile are moved by fork to the kiln loading stations.

Plant No. 2 has five Allied circular kilns; gas burning, 280' in length or 80' in diameter. When removed from the kiln, tile move by fork truck to grading and inspection; those passed go into paper boxes for shipment. William Chapman is superintendent of Plant No. 2.

Plant No. 3 makes other shapes and sizes in addition to 6T. The quality control lab is based at this point, doing the work for all three plants. The glaze batches for all plants are made up here, put in containers, and delivered by truck. The lab checks quality of all incoming clay as well as glaze components. Color of the glaze is checked before use to maintain proper colors.

Grinding, screening and extruding at No. 3 is similar to that of No. 2. Plant No. 3 uses standard size dryer cars, in contrast to the 10' models at No. 2. Sized tile are manufactured at No. 3 with grinding done on unfired dry ware before glaze spraying takes place. The 8W tile are all ground on

edges to secure exact size regularity. Hand-made shapes are also made at No. 3. Six circular Allied's are used at No. 3, identical to those at No. 2 plant.

At Plant No. 4, the firm has completely rebuilt grinding and forming areas. When purchased, the plant had a Swindell-Dressler tunnel kiln; since then, an Allied straight-line has been added. Production here is restricted to a limited range of standard colors and sizes, allowing for more extensive automation. Straight line material flow is achieved with kiln cars passing under loading and unloading conveyors.

Arketex employs about 850 in the three plants and in the large administrative and sales division. Now producing 15,000 tons of tile per month, the company considers the entire U. S. as its market area.

Rotary Dryer Used For Surface Clays

Krick-Tyndall Co., Decatur

HIGHLIGHTS: This is Indiana's largest plant devoted solely to drain tile production. Surface clay used is run through a rotary dryer in order that it can be reduced in size on conventional dry pan equipment. Mechanical handling of dryer cars with light-powered fork trucks reduces costs for company.

SPECS: After grinding, clay is screened and delivered by conveyor to J. C. Steele combination de-aired machine or to vertical hydraulic-powered press. Equipment used includes F-R-H cutter; double deck dryer cars; 18 coal-fired beehive kilns. Plant uses large fleet of trucks with much material loaded right from kiln onto truck. Plant manager is V. M. Krick.

Glass Melting Pots Manufactured for Hand Operated Glass Plants

Gill Clay Pot Co., Muncie

HIGHLIGHTS: Established in Bellaire, Ohio, in 1882, the plant was moved to Muncie in 1892 during the natural gas boom. Gill Clay Pot Company is one of only three companies in the United States making this highly specialized product.

SPECS: Clays used are shipped in from several states and also from Germany. After thorough blending and preparation, the pots are manufactured entirely by hand by skilled workmen. Since average weight of pots is over 2,000 pounds each, manufacturing and drying cycle requires three to five months' time Management is John Gill, president, Charles Benham, secretary-treasurer.

Company Research Promotes Plastic Pipe Joints, Packaging

Cannelton Sewer Pipe Co., Cannelton

HIGHLIGHTS: Dealer relations improved with packaging system that cuts delivery and handling costs. Continuous plastic Wedge-Lock joint lines and bituminous Jiffy-Joint lines spark lower installed costs for sewer pipe. Maintains a fleet of 24 trailers for deliveries.

SPECS: Produces all sizes of sewer pipe from 4" to 30" with standard and extra strength production in all sizes. Clays blended from open pit strip mines. Dry pans are used for grinding and pan mixers for preparation before going to steam presses or horizontal units. Plant uses two Stevenson steam units for large sizes and a F.R.H. auger machine for 4" and 6" pipe, and a second horizontal extruder for production of 8", 10" and 12" pipe in 4' and 5' lengths.

Large pipe moved on conveyors and skip hoist to steam heated driers. Two new high speed driers have been installed and drastically reduce drying time. Pipe fired in periodic kilns. Four of 28 kilns have insulated crowns and side walls with others scheduled for like treatment when replaced. Insulated kilns and Robinson Hi-draft units cut firing time 36 to 48 hours. Oil stand-by on gas-fired kilns.

Company designed oven used to preheat pipe and cure plastic joints on considerable quantity of production. Process adaptable to different sizes of pipe with minimum changeover time.

Company headed by Edward F. Clemens, president; Eugene C. Clemens, vice president; Roger C. Stoen, superintendent of Cannelton operations.

Buff Brick, Red Brick From One Shaft Mine, Strip Pit

Huntingburg Brick Co., Huntingburg

HIGHLIGHTS: Strict standards of yard maintenance are enforced by woman manager, Eunice Landgrebe. Taking charge of all operations after the death of her husband, Gilbert C. Landgrebe, in 1947, she has improved plant facilities while upgrading appearance. New equipment includes Bonnot machine.

SPECS: Strip mine and shaft mine are used by company to get a blend of raw materials so good that they are not improved by deairing. Contract hauler puts clay in large covered storage. Grinding room used Meco reciprocating feeder, Stevenson dry pan and Simplicity vibrating screen.

Forming department uses new Bonnot extruder, Steele cutter with old units retained for standby use. Dryer tunnels heated with waste heat from beehive kilns. Extra large dryer space available. Nine 32' beehives make up the kiln complement. Capacity runs 30,000-40,000 brick a day.

Insulated Kiln Crowns Eliminate Salt Drips

Natco Corp., Brazil
Natco Corp., Hobart

HIGHLIGHTS: Natco operates the Brazil plant in production of sewer pipe, the Hobart plant for conduit and flue tile. Brazil switched from conduit to pipe in 1949.

SPECS: Brazil plant uses dry pans to grind blend of clays; equipment used includes Steele horizontal extrusion machinery or steam-power Stevenson vertical presses. Vertical presses are for large sizes only.

Brazil dryer house is four-story unit; twenty coal-fired periodic kilns are equipped with individual stacks, stack boosters. As kilns are being rebuilt, they are being equipped with insulated brick crowns as means of eliminating salt drip on the pipe; fuel savings are another consideration. Plant has slip-seal line. Superintendent is R. W. Hunter.

Hobart plant uses air driven cutter on large conduit pieces. Equipment used includes Link-Belt screen, combination F-R-H extrusion machinery, oil heated dryer, coal fired kilns. Handling is by fork truck. Superintendent is Doyne Payne.

Diesel Power for Drain Tile Plant

Inman Tile Co., Hartford City

HIGHLIGHTS: Diesel power in the form of a 165-hp G.M.C. furnishes all power for this isolated plant. Has just completed installation of a new Fate tile cutter. Plant has been kept modern with similar machinery replacements over the years.

SPECS: Plant makes drain tile in sizes to 12 inches from surface clay. P & H drag line used to win clay, truck haul to plant and clay dumped into bin fed with screw feeder. F-R-H mill works into the new Fate cutter. Tile machine only few years old. All equipment driven from line shafting. Three-story dryer house is steam heated. Plant produces 2,000-3,000 tons of tile a year with only two coal-fired kilns.

Present owner and manager is Neil Inman, whose great-grandfather started the company in 1898. Present facilities date from 1925.

Better Drying Added At Dee Clay Products

Dee Clay Products Co., Bloomingdale

HIGHLIGHTS: Now operating 8 periodic kilns, including one that is being completely rebuilt, Dee plans soon to build a ninth kiln. Considerable work has been done in expanding and improving drying facilties, including a partial floor of Dravo grating plus installation of several Robinson Tubeaxial recirculating fans. New equipment being put in includes a new Toronto former rod, for making a larger size product; also new is a Steele cutter.

SPECS: Dee's main product is flue lining, in a complete line of round and square glazed and unglazed, plus drain tile and other products. Output of 13,000-14,000 tons annually is made with this equipment: Meco rotary disc feeder, F-R-H Jr machine; Stevenson 100-ton press, steam operated.

Kilns are coal fired; vary in size from 26' to 36'. Dryer rooms are steam heated, with stoker-fed coal as heat source. Herbert Miller is company president; William T. Dee, vice-president; Susie H. Dee, secretary-treasurer; William H. Jeffers, superintendent.

Indiana Drain Tile Stresses Forced Draft, Good Maintenance

Indiana Drain Tile Co., Brooklyn

HIGHLIGHTS: All of this plant's five 42' kilns are under steel roofing, all operating from one 120' stack. Also used are two 32' periodics built in 1951. Forced draft is used throughout. Yard is paved to assist handling. Loading of trucks is done at kiln with use of Meco power conveyor. Plant uses own shale planer, which was invented by present owner's father. Planer has an automatic truck loading operation, is crawler mounted. Plant management under President Oscar Powell stresses maintenance, daily plant clean-up, for well-maintained operation.

SPECS: A 1948 F-R-H Jr is rebuilt twice a year as part of maintenance program. Equipment used includes Chase 4x8" dryer cars for waste-heat operated dryer, ten-tunnel, each holding 30 cars. Plant also uses Bonnot 9' dry pan; kilns are coal fired. Products include 4 to 16" drain tile, partitions in all sizes with backups, floor tile and face tile with production running about 100 tons per day.

New Dryers, Mechanical Handling Increase Conduit Production

Brazil Holloware Co., Brazil

HIGHLIGHTS: Started soon after the Civil War this plant has been in production steadily ever since. First product was stone ware pumps used on farm wells throughout Indiana. Switched to drain tile, flue tile, structural tile and silo block before 1900 and in 1910 started making electrical conduit which increased in importance until 1944 when all other production ceased. Making exceptionally large units, plant uses F-R-H extruder and hand powered cutter. Size requires good control of dryers and eight days in one of the 22 dryers before moving to kiln.

SPECS: Bonnot dry pans used to grind blended clay and heated screens required to handle clay when damp.

Long time management includes W. M. Price, president; E. W. Hayward, vice president and John Price, secretary and plant superintendent.

Fast Growing Loogootee Plans Tunnel Kiln

Loogootee Tile Co., Loogootee

HIGHLIGHTS: Rapid turnover of kilns has increased production figures under present owner drastically. Seven beehive kilns have fired 6,000,000 4" tile in ten months. Constant expansion program includes plans for tunnel kiln.

SPECS: Shale hauled ¾ mile after being won with P&H shovel. Two dry pans and two screens used to size shale which is extruded on a new F-R-H combined deairing machine. Double stream of 4" tile cut on Fate cutter and hand set on two deck dryer cars. Tunnel dryers are heated with natural gas. The seven beehive kilns are fired with gas during the summer, and during winter half of them are fired with coal. Transfer car powered with gasoline engine for rapid movement of dryer car to kiln for setting.

President and General Manager Walter X. Brown acquired control in 1946; truck operation under direction of Clarence Haag, assistant manager, who is also secretary and treasurer of the company.

Shale Planer, Storage Shed Eases Shale Supply

Standard Brick & Tile Co., Evansville

HIGHLIGHTS: Tunnel kiln 160' long, used during the eight months that the gas supply is assured, is shut down during the winter and production of periodics continued. On site shale supply is worked with a 40' Eagle shale planer. Waste heat drawn from both periodics and tunnel kiln for drying.

SPECS: Planed shale moved to grinding department with mine car pulled with a Fairmont railroad section car. Simple power transmission since two cycle engine will run either direction. Brewer hoist pills mine car up incline to bin over reciprocating feeder into an American rim discharge grinder. Heated and vibrated Leahy screens pass fine material onto conveyor to two-weeks' supply clay storage shed or direct to mill room.

Management consists of Ralph T. Kleymeyer, president and general manager; Clifford Kleymeyer, secretary-treasurer, and Harvey Lambert, superintendent.

Summer Operation Uses Atmospheric Dryers

Kretz Brick Co., Washington

HIGHLIGHTS: Operating from April to November, plant uses open air drying racks to produce drain tile. After drying in about seven days tile are fired in beehives that have been converted to burn natural gas.

SPECS: Pit operation includes use of track-laying front and loader to mix and load the face of the pit. Surface clay and fire clay are mixed in each load and trucked to plant where Steele pugger prepares clay and acts as feeder to a F-R-H extruder. After being cut to length on hand powered cutter, tile are moved to dryer sheds on large carts.

Idle Plant Sold, To Be Expanded

Huntersville Brick & Tile Corp., Batesville

HIGHLIGHTS: Plans made to build new kiln and to resume production at the old Herman Wessel plant.

SPECS: New owners of plant are Alois Doll, Victor Evhart and Clifford Meer.

Double Block Sanded Face Brick Make Up Medora Production

Medora Brick Co., Medora

HIGHLIGHTS: Medora Brick has 12 new coal-burning beehives and produces 15,000,000 brick a year. Local sand is used to cover the face of the most popular selling red face brick. About 1 per cent iron oxide is mixed with sand for better color.

SPECS: Medora, associated with Jackson Brick & Holloware, uses the same pits and shovels to get material. Plant built in 1906 as a paving block plant uses a Raymond drypan for grinding and Leahy screens for control of size. Barium is used and added with a disc feeder for mixing in the pugging section of the Bonnot combined brick machine. Steele cutter cuts sanded column.

Sand for face treatment put on with a feeder and a metal drag forces it into contact with the surface layer. Waste heated dryers hold standard dryer cars.

James Heller, president, is also manager of Jackson operation. Medora Brick is under day to day control of Superintendent Ralph Gray and E. R. Gray.

BUILD BEFORE THE BOOM

1963
1962
1961
1960

Back in 1921, during a depression, BRICK & CLAY RECORD advocated that heavy clay products manufacturers forego dividends and rebuild their plants in anticipation of a boom.

A very few heeded this advice but those who did benefited handsomely. And these men were grateful.

During World War II, when things looked very bleak, our editors again said "Build up your plants, modernize — a boom is ahead of us." Again a few went along and again benefited. One manufacturer spent more than $1 million and practically held B&CR responsible until the boom developed; then he was grateful.

Now, we again say, "Build BEFORE The Boom." Your plants should be readied for more efficient production now. There are two good reasons for this: 1, prices of labor and equipment will never be lower than over the next 18 months to two years; 2, with production at a lower level, there is time to do major repairing and changing without excessive loss from shutdown.

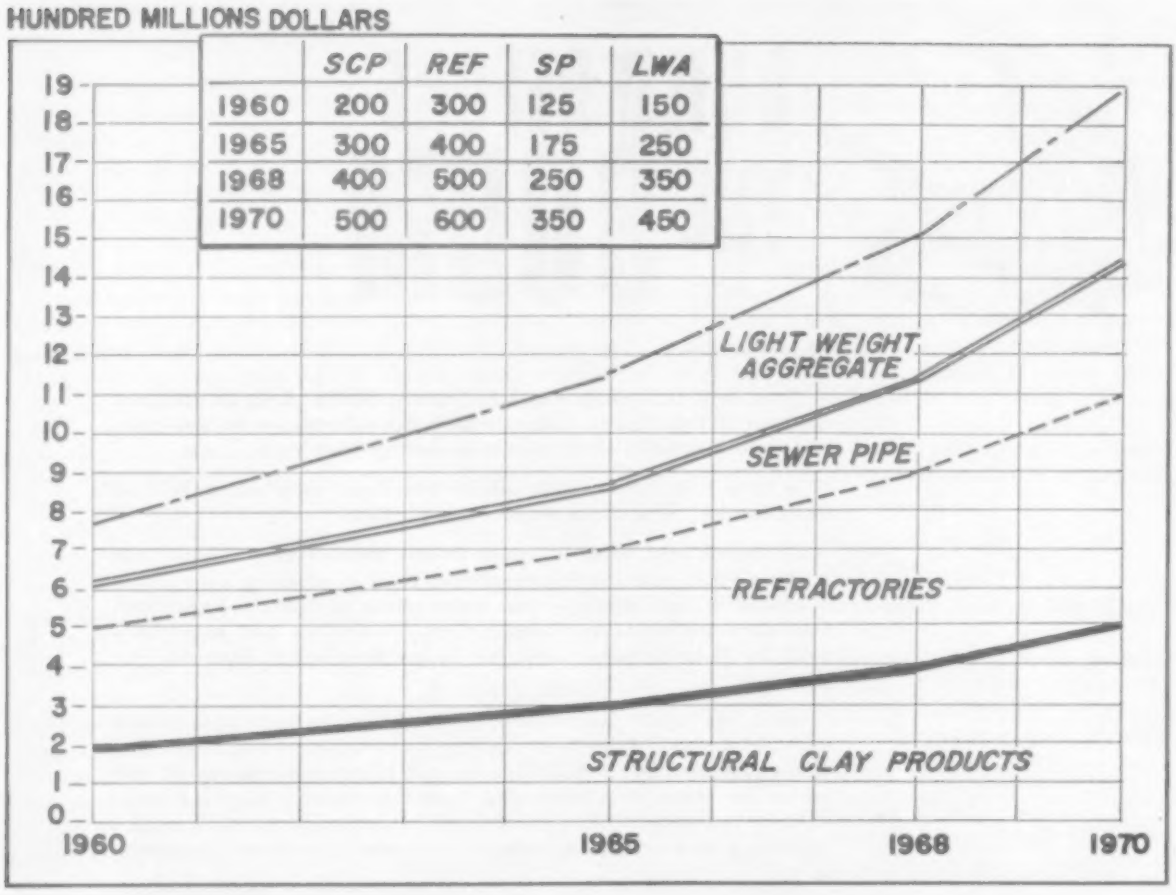
Plants in general have followed a pattern in modernization. In the 20's, production was increased from 1000 brick/man/day to 2000 brick/man/day. Following the big depression of the 30's, production was increased to 2500-3000 brick/man/day. During the boom just passed, production went over 3000 brick/man/day. Now we predict a new goal of 4000/man/day.

There is much work going on in the industry right now—among those who believe in building before a boom. They want to be ready . . . they know it's cheaper to do it now . . . they'll pay for the re-building with the profits of the boom, long before the boom runs out.

As in 1921 and in 1945, we say build now and modernize now. Smart business men build before a boom.

The following pages forecast the effect of the boom of the 60's on the clay products industry. How will it affect structural clay products, clay pipe, refractories? What will these industries do? What are the factors bringing on this boom of the 60's?

In general, it will be a solid boom and one of long duration. The early 60's will have a moderate effect on the clay industry. The middle 60's will show a more emphatic rise in demands upon the industry. Then the late 60's will see an unprecedented demand on refractories, clay pipe and structural products. A new high for the industry will be set, one that will carry on into the 70's.



Total of industry could be nearly two billion dollars by 1970. Chart above is cumulative, with refractories, pipe and aggregate added to total size, actual and predicted, of structural clay industry.

Entire Industry Will Set New Records

All past peaks will be forgotten in the rapid rise of production and sales to come in the 60's; total of clay products industry to be near $2 billion.

Many factors are involved in the development of the growth curve of the clay industry in the 60's. One is the highway program, which is not expected to get into full swing until the early 60's. This program, estimated to be up 88%, will create great demands on the refractories plants to supply material for manufacturing steel, clay pipe and other products. The annual rate of building may reach $12 billion at the peak.

Housing starts will increase slowly in the early 60's, growing with the expanding population. As the increased births of the late 30's and early 40's reach the 30-to-35 year old age group, with this group being the heavy home buyers, the curve will increase rapidly, and in the late 60's will jump even more rapidly. Both structural clay products and lightweight clay aggregate will be affected by this. Of course, the other branches will be affected because of the need for steel and sewers.

Non-residential construction will zoom in the same manner, with great need for office buildings, schools, churches, hospitals, and factories.

The 60's will have three periods of building growth. The early 60's will see a consolidation of structures and normal population growth. The middle 60's will see demand for larger homes by larger families, with more families than ever before. The late 60's will accommodate the bulge in home buying, from the increasing rate of family formation.

Men In Our Industry, Other Industry Say: Build Before Boom

"... The capacity of our Blue Island plant is being increased 25%. New installations can presently be made at lower cost than would have been possible last year, when business was better ..."

"... Money to finance better equipment or a more-balanced inventory is becoming cheaper. If you need to borrow, the period ahead will offer better terms than a later period. When money is cheap it is often a good time to buy things that must be bought with borrowed money ..."

"... The year 1958 should be regarded as one of opportunity, one to take advantage of. Good buys can be made in raw materials and equipment. Financing is cheaper. It's a time to get set for late 1959 and 1960, when surplus capacity of today may turn into a shortage ..."

"... A key presidential assistant reports on conversations with businessmen in Chicago and Cleveland. He found much pessimism about the short pull — the next several months. But he says he found considerable worry, too, and he finds this significant. More than one of the businessmen expressed a fear that they might play it close too long and in this way let the competition get the jump. Too long a delay in plant and equipment spending or in building inventory may prove costly later ..."

"... The mathematics of business favors increasing profits by selling rather than by 'economizing.' This is the smart way! You can't reduce your operating costs more than 100%, but there are no laws to stop you from increasing your sales 1000% ..."

"... Anyone who waits for the current recession in business to bring building costs down before he undertakes a needed project is almost certainly doomed to disappointment. With wage rates fixed or rising, and materials prices showing no signs of softening, the only downward pressure on costs is from contractor competition, which cannot go farther and leave any profit in the job. Construction costs, therefore, are not apt to go lower ..."

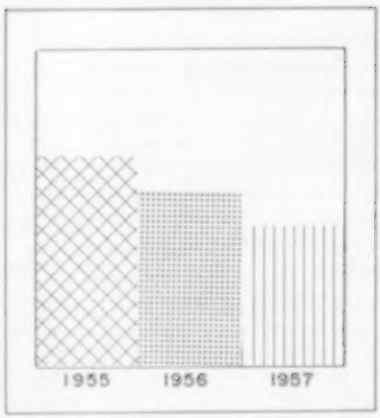
"... This is definitely not the time to cut ad budgets. The easiest thing in the world is to plan for a decrease in business, but it takes some hard shirt-sleeve selling to equal or beat last year ..."

"... The men who head many of the country's biggest corporations are betting on a business upturn this year. So says Dun & Bradstreet after polling more than 100 presidents of top United States industrial companies. Here are the major findings: Eight out of 10 company presidents expect the economy to take a turn for the better sometime during 1958 ..."

"... The time to plan plant expansion and equipment modernization is in a period like the present. The courageous businessman today will start planning for plant and equipment improvement and, if possessed of capital or ability to finance it, will start building now ... Every business index in the years ahead will make new highs. That doesn't mean that we will not have a further decline this year. In all probability we may. But the long-range future of this country is so fantastic that even some of the wildest forecasts of the optimists may fall short of a true appraisal ..."

Each Section of Industry To Rise

Structural Clay Products

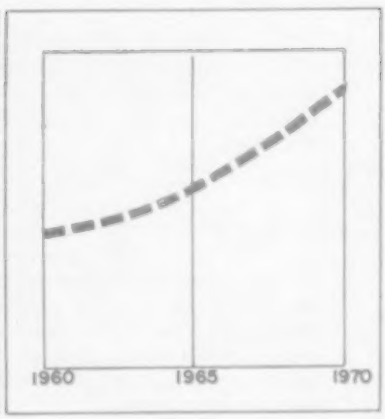


The Record

Use of clay products mounted to an all-over high in 1955. With the down trend in housing, the curve went down. The industry had concentrated on housing sales primarily and went along with the dip in housing starts.

Next Six Months

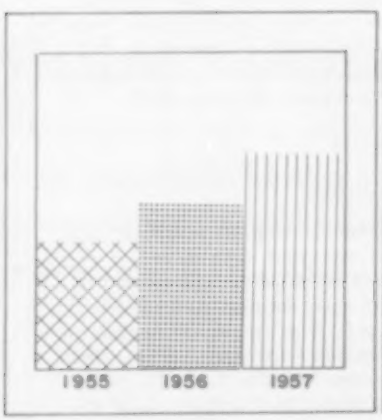
The rest of this year will follow the building curve. A spurt is expected in the summer and fall with a down trend for the winter.



The 60's

The 60's will see the real revival of this industry. This will come not only because of the increasing demands for brick and tile for housing use but also as the fruits of research work.

Refractories

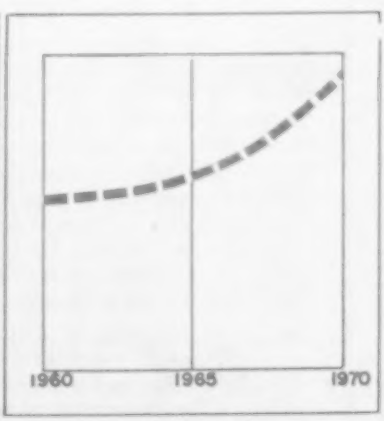


The Record

The Refractories industry climbed steadily with the expansion of steel and reached a high in 1957.

Next Six Months

This year will continue sideways with possibly an upturn in summer, a downturn in fall, and finally a revival in winter. Building and car production will bulge in summer. Preparations for 1959 highways will bulge in winter.

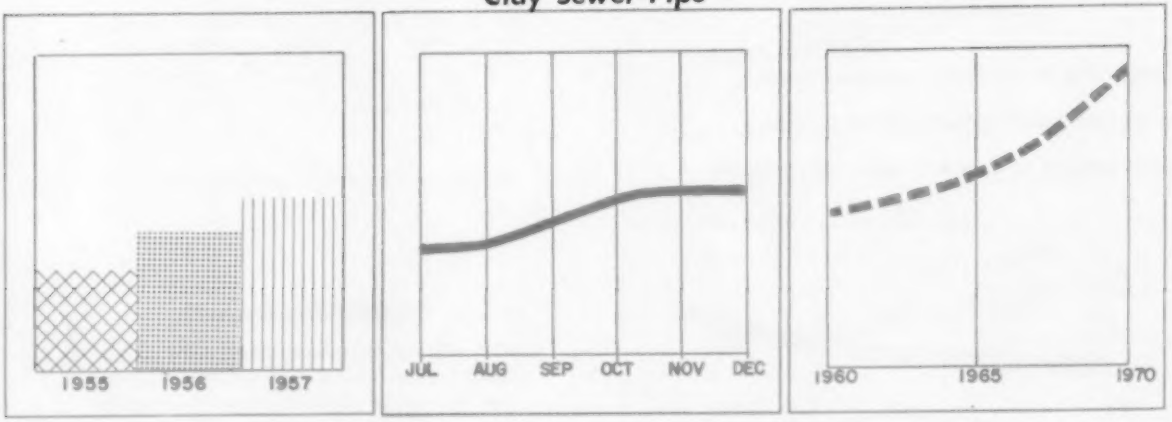


The 60's

Highways will make demand grow in the 60's. Housing and other building construction will increase the curve's rise. Net will be a doubling of dollar volume.

The charts on these pages forecast, by each segment of the clay products industry, the business conditions of the 60's. Included are the past record, and a forecast for the next six months. The graphs indicate only trends, not actual figures.

Clay Sewer Pipe



The Record

This history is one of steadily increasing demand with a high in 1957. Community expansion, increased awareness of sanitation and conservation needs are big factors.

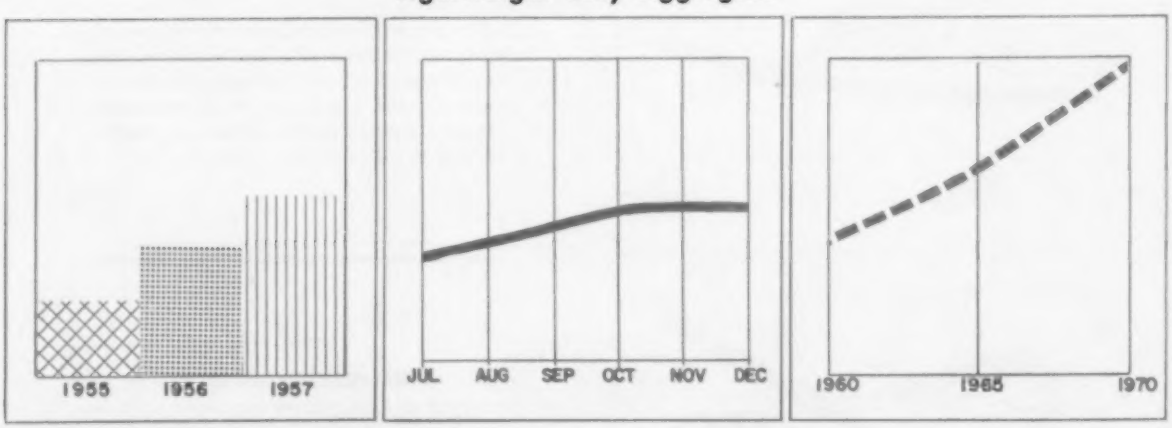
Next Six Months

Although this year started at low level, it will climb steadily until winter sets in. Climb will resume in 1959.

The 60's

The 60's are very promising here. New communities, expansion of old communities, factories, highways will boom the industry to an all-time high.

Lightweight Clay Aggregate



The Record

Slow in starting, this group is now recognized. It reached a high in 1957 with construction.

Next Six Months

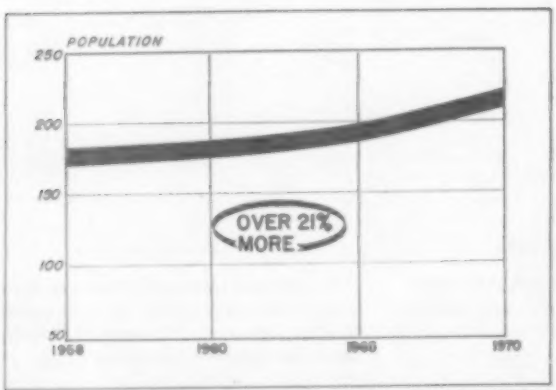
1958 started slowly but tempo is now up. It will continue up through building season then drop off gently in winter.

The 60's

The future is possibly the best of all clay products. Lightweight clay aggregate's future is in construction using concrete. Look for better than a doubling of output. It will follow construction, plus.

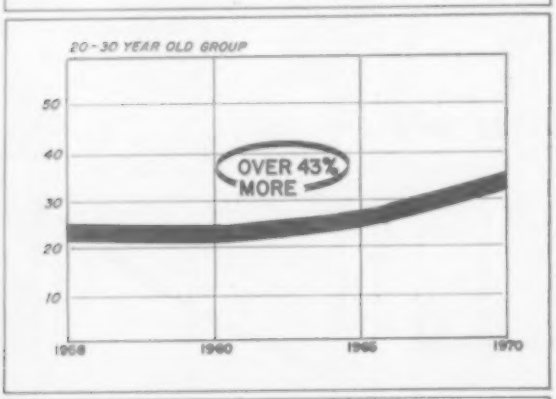
Clay Products Will Follow Overall Growth of Population, Industry, Production in 60's

Great rise in families needing homes, in larger families will boom building; steel output to call for more refractories.



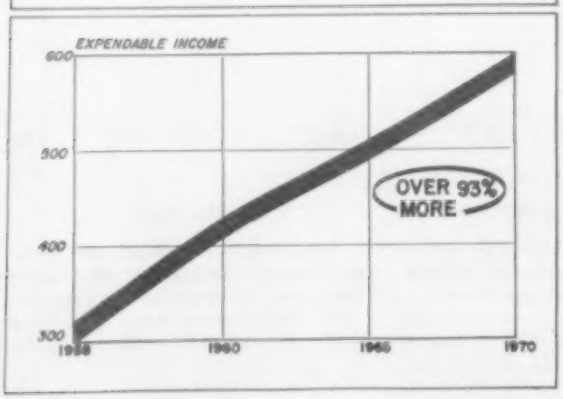
Population Growth

Completely supplying a fifth more people means that industry will have to operate just that much more. But the standard of living will be higher and wants greater than just the rise in population would indicate; overall consumption per capita has been rising for years.



20-30 Age Group

People in this age group, to rise nearly half, are the real spenders for homes and furnishings. This group will provide the impetus for the big bulge in the economy. Trends toward earlier marriage, larger families are also factors to watch.

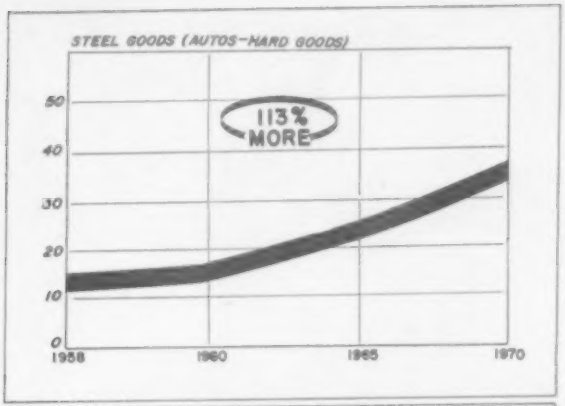


Expendable Income

More money for less work, a pattern for recent years, and relatively cheaper goods means more goods and a real push to prosperity. People will have larger share of income to spend after taking care of necessities.

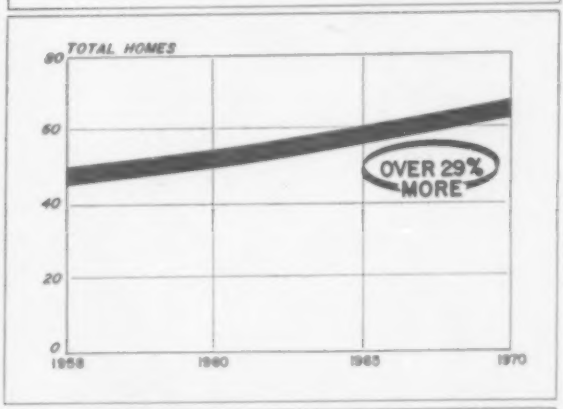
Steel Goods

This is the backbone for the growth in refractories. Putting all facts together, steel will have to increase production for hard goods industries; refractories output will have to follow in ratio.



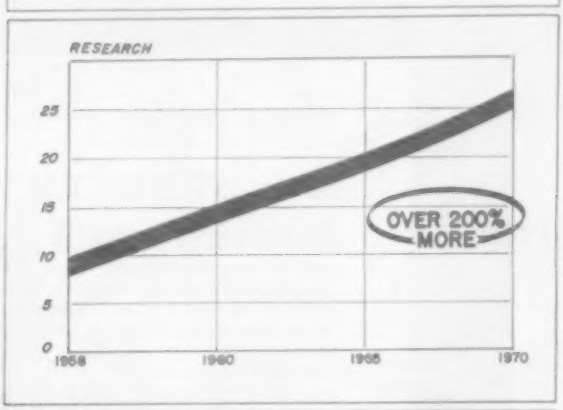
Total Homes

This will be an impressive gain. A third more homes in a tenth of the life of this century. Can it be done?



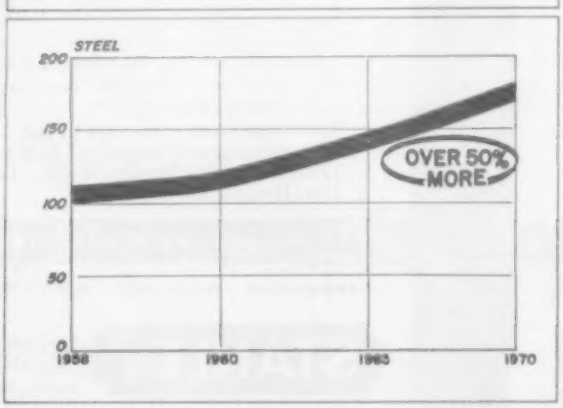
Research

New products will mean changes in homes, factories, buildings; products to be developed will create new, bigger markets. Changes can mean faster moving economy with development of really new products. All industries are showing greatly increased interest in research, setting up programs.



Steel

A 50% increase is the most conservative estimate for steel expansion with forecasts calling for a similar 50% expansion in refractories.



Another **STANLEY STEEL STRAPPLICATION*** on the job
Photograph: New Jersey Shale Brick & Tile Co.

This man . . . is eliminating 49 handling operations!

Before this New Jersey brick manufacturer started using the Stanley "Uni-Pac" method and the Stanley Electric Skid Magazine Tool, loading 400 bricks on a truck required 50 operations. Using tongs, 8 bricks at a time were transferred from loading platform to truck. Now, 400 bricks, steel-strapped into a "Uni-Pac," are loaded in ONE operation! With manual handling, 3 men required ONE hour to load a truck (8,000 bricks). With Stanley "Uni-Pac" handling, ONE man requires only ONE-QUARTER hour to do the same job!

Bricks can be secured into a compact, easy-to-handle "Uni-Pac" by applying steel strapping with the Stanley ESM Tool, which power-tightens each band to a pre-determined tension, with equal pull on every band. The Stanley Steel Strapping Specialist can show you how to devise a "Uni-Pac" that will be just the right size to meet your specific requirement.

WRITE FOR YOUR FREE COPY of the "Stanley Strapplication Manual of Packaging and Shipping" to **STANLEY STEEL STRAPPING,** Division of The Stanley Works, Dept. F, 1308 Corbin Ave., New Britain, Connecticut.

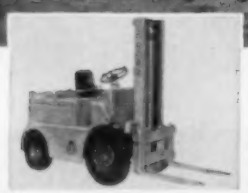
INSURE IT-SECURE IT-WITH STANLEY STEEL STRAPPING

AMERICA BUILDS BETTER AND LIVES BETTER WITH STANLEY

STANLEY

This famous trademark distinguishes over 20,000 quality products of The Stanley Works—hand and electric tools • drapery, industrial and builders hardware • door controls • aluminum windows • metal parts • coatings • steel and steel strapping—made in 24 Stanley plants in the United States, Canada, England and Germany

Today's industries need Towmotor Continuous Operation



New functional body design introduced in the Towmotor "Pace-Maker" Series contributes greatly to trouble-free Towmotor Continuous Operation. New Model 680-P is shown above.

New "easy-off" hinged hood tilts back with seat – makes quick, convenient access to entire engine compartment possible – and without tools! Swift check-ups assured.

New planned-comfort features like adjustable off-center seating, extra leg-room under cowl, and easy-reach controls increase the efficiency of Towmotor operators.

Use Towmotor **Continuous Operation** to Lower Your Production Costs!

Why are Towmotor fork lift trucks known world-wide for their ability to *keep on the go* —working around the clock to move goods faster through *every department*—increasing productivity and reducing production costs?

Towmotor operators can answer that. They may not say *"advance engineering"*—*"new functional design"*—or *"maintenance-free operation"*—in so many words. But that's what their praise adds up to when they talk about a Towmotor.

Leaders for 39 years in building Fork Lift Trucks, Tractors and Carriers

TOWMOTOR THE ONE-MAN-GANG **-GERLINGER**

Gerlinger Carrier Co. is a subsidiary of Towmotor Corporation, Cleveland 10, Ohio

You'll also hear lots about *"service that's there when it's needed!"* Over the years we have gone to great lengths to locate Towmotor-authorized service and parts depots close to every user. This helps to maintain the *continuous operation* of Towmotor fork lift trucks that is especially advantageous today. For complete details, send for our new "Pace-Maker" Booklet #SP-23.

☐ Send free Towmotor Booklet SP-23

☐ Send free Certified Job Studies relating to our business which is:

Name_____ Title_____

Company_____

Address_____

Mail to **TOWMOTOR CORPORATION,** Cleveland 10, Ohio

How The

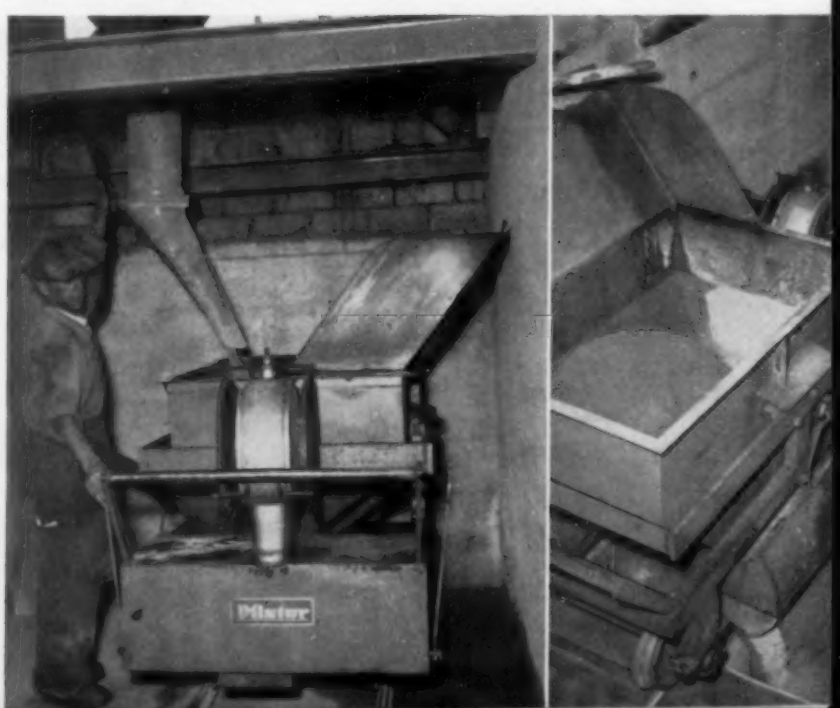
Above is an overall picture of a Stahlton plant.

The concrete is poured when the complete layer has been laid up, i.e. 4 rows of tile side by side on one side of the center board (equivalent to 900 lineal feet) and after all the wires have been placed and tensioned.

The BBR machine used for this purpose consists of a feed hopper and spreader mounted into a steel frame, the lower side of which has attached to it a series of vibrating fins which coincide with the spacing of the tile grooves. In this frame is mounted a mechanical vibrator electrically powered.

The machine "rides" along over the top of the layer of laid-up tile, its vibrating action causing it to "float" in such a way that it can be moved along easily by hand by one man without power travel. The weight of the machine is supported actually by the tile themselves, there being no intermediate rail or wheels. The machine is made in various sizes, capable of straddling one, two or even 4 rows of tile. It is readily portable, so that it can be moved around, and from one bed to another without special equipment.

Last of A Series:



Steps shown at right cover the concrete weighing, pouring, and mixing. Any efficient concrete mixer is suitable, with ¾ cu. yd. a common size. Accurate and reliable quality control is desired.

Stahlton Unit Is Made

The final article in this series describes the concrete pouring operation, addition of the steel stirrups and plank handling.

by
Arthur P. Klages

Concrete is brought from the mixer by barrow and loaded into the spreader-hopper on the machine which itself rests on the tile. The unit is then moved over the layer at from 10 to 15 ft. per minute, spreading and vibrating the concrete into the grooves. The fins are immersed in the concrete in the grooves, thus assuring thorough vibration where it is required. Amount of concrete used is small, 1 cu. ft. per 50 lineal ft. of plank.

Immediately following this "pour" is an operator who clears out the concrete at the plank ends with a hand tool, i.e. he uncovers the wood spacer blocks previously referred to.

Placing the Stirrups

Following the pour is another operator who imbeds into the concrete filled grooves the steel stirrups necessary to provide the shear reinforcement. These stirrups are a loop of steel ¼" rod, bent into a Z shape.

The two prongs of this loop are pushed into and buried in the wet concrete in such a position that the upper loop (upper part of the Z) lies flat along the upper face of the plank.

The operator uses a portable vibrator, applied externally to each stirrup so buried in the concrete, to effect the required consolidation of the concrete around the stirrup rod.

The stirrups are shaped this way so that they do not interfere with stacking and handling of the finished planks. They are bent into an upright position only at the time of assembly at the site.

After the pouring operation and placing of stirrups on the first layer (4 rows), wooden spacer strips approximately 2″x1″x3′ long are placed over and across the layer, generally spaced at about 3′ apart, and so placed to avoid the stirrups.

On top of these spacers (known as "stickers") wooden deck boards are placed, again over the full working length of the bed. These boards, usually 10″x1″ of random lengths, are stored in convenient racks immediately overhead and are easily handled and placed.

Paper Layer

It is common practice to spread a layer of paper over this deck surface throughout its length. On this is marked out the required lengths of the planks in the lay-up, and 1″ sq. wood spacers are again nailed at the points representing plank ends.

Another complete layer of 4 rows of tile is then laid up on this deck, in a sequence as described for the first layer. Wire is placed and tensioned, concrete is poured and vibrated, stirrups placed, and again another deck placed on top of this layer.

The present practice is to go 3-high with these layers. That is, a full lay-up on one side of the bed comprises 3 layers of 4 rows each, totalling 2700 lineal feet of plank.

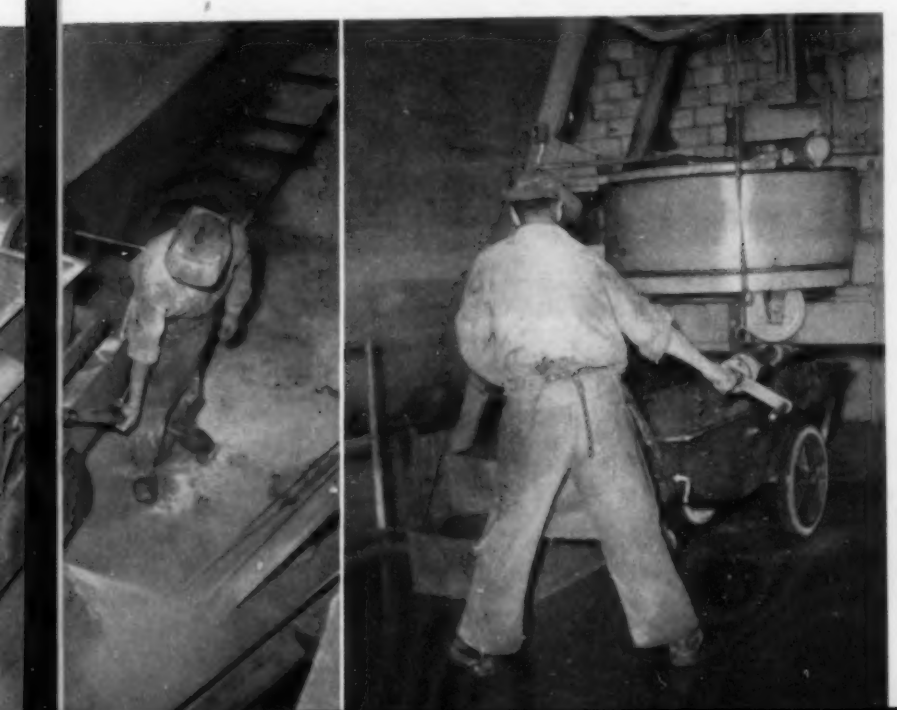
There is no attempt to wait for the concrete to set in any one layer before proceeding with the next layer. Though it may seem that the vibrating of layer No. 2 will disturb the setting and concrete bonding in the underlying layer No. 1, this disturbance does not happen in fact.

Three High

It is possible to go higher than the 3-high with these layers, but this increases drying time and also requires a heavier bed construction. Experience has shown that the optimum bed length is 75 meters and the most efficient multiple decking is 3-high.

It is the practice for this complete lay-up to be done by a group of workmen working as a team or crew. Immediately the first one side of a bed is fully laid up, work is started on the other side. This is also fully laid up and the whole lot placed under the heating covers before the evening. The same team in the afternoon not only lays up the second half of the bed, but is also required to "unload"

(Continued on page 86)



3 new applications get longer life and minimum maintenance using Dodge pillow blocks with Timken® bearings

PICTURED below are three applications where Timken bearing equipped Dodge pillow blocks stay on the job with little attention under tough conditions. Their tapered design lets Timken® bearings take *both* radial and thrust loads in any combination. And full-line contact between rollers and races provides extra load-carrying capacity. Wear is reduced, maintenance is cut to the minimum.

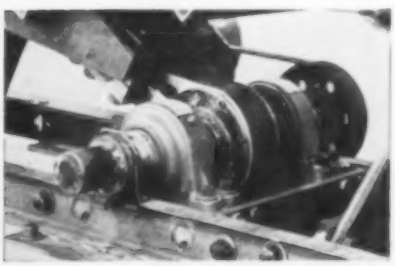
Cutaway view shows the Dodge All-Steel pillow block with Timken bearing mounting. Of special design, the bearing has a tapered bore with self-aligning spherical outer surface —never needs adjustment.

Besides the All-Steel pillow block, other versatile Dodge pillow blocks with Timken tapered roller bearings are: Type "E", Double-Interlock, Type "C" and Special Duty. All are compact in design. Special thrust devices that take up extra space are not needed.

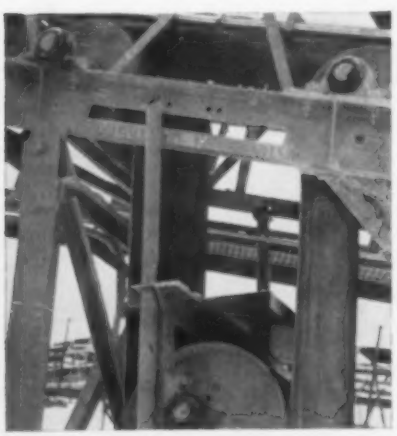
And to get the finest steel for Timken bearings, we make it ourselves—America's only bearing manufacturer that does. So specify bearings trademarked "TIMKEN" for the machines you buy or build. The Timken Roller Bearing Company, Canton 6, Ohio. Canadian plant: St. Thomas, Ontario. Cable address: "TIMROSCO".

TIMKEN ROLLER BEARING EQUIPPED

This symbol on a product means its bearings are the best.



Timken bearing-equipped Dodge All-Steel pillow block used in a vibrating conveyor.



Timken bearing-equipped Dodge Type "E" pillow block used in sand and gravel plant.

Timken bearing-equipped Dodge "Special Duty" pillow block as used on fine paper machine lineshafts.

TIMKEN TAPERED ROLLER BEARINGS ROLL THE LOAD

TRADE-MARK REG. U. S. PAT. OFF.

Can Silaneal Control Green Staining?

New product, applied after firing, has been used in Texas plants to control staining, end discoloring; also prevents mud splash on wall.

Editor's Note: This month we received the below story from Dow Corning containing news of great interest to our readers. Because of close press-time, we run the release unchanged. In the July issue, a full feature story will supply complete details about this new product: how it's applied, what spray set-up is needed, the effect on red brick and other information.

For years architects all over the middle West have admired the beauty of brick made from Texas-Louisiana clay. Its decorative qualities stem from the unusual light colors it displays. Unfortunately, under some wet conditions, the presence of mineral salts in the brick causes it to develop a less attractive green color or dark green spots. In many cases this limited the use of this highly desirable product to the drier climates of the Southwest.

But due to a recent discovery, architects have found it possible during the past year to build many large buildings in the Midwest all the way from Fort Worth to Chicago, using this brick for its attractive decorative qualities.

Reliance Is Using

The brick for all of these jobs came from the Reliance Clay Products Co., of Dallas, Texas. Several years ago Reliance began an earnest study of their discoloration problem and have eliminated color change completely by treating their brick with a product supplied under the trade name Silaneal 772, manufactured by Dow Corning Corporation, Midland, Michigan.

Examination of the buildings that have been constructed and have been subjected to even the severest humidity conditions, shows no sign of any color change. Because of the highly water repellent surface, an additional advantage has been observed in that mud stains from rain splash have been completely eliminated.

The treatment used is Silaneal 772, diluted in the ratio of one part to twelve parts of water and sprayed automatically on the face and both ends of the brick as it is conveyed from the tunnel kiln. Both faces can be sprayed if required. The treated bricks are simply stacked and allowed to dry. No further cure is needed.

Reliance began using the treatment back in 1955. They are the first brick company to employ it in quantity production and they have been using it exclusively on brick sold under the trademark "ReliClean."

Not only does the Silaneal treatment assure longer-lasting attractive appearance, despite all weather conditions, but masonry contractors have expressed a definite preference for it. Because it does not absorb water out of the mortar they can lay six courses before striking up the joints; previously, they could lay only three. What's more, the fact that finished walls can be cleaned without washing with acid represents another substantial saving in labor.

Reliance officials say Silaneal 772 has reduced their reject rate so much that they can afford to sell treated brick at regular prices.

As cured brick come from tunnel kiln, they pass through "booth" which sprays face and both ends with solution of Silaneal 772.

NCPMI, SCPI

Because of the number of meetings in May, and limited space available to us, reports on the NCPMI and SCPI meetings will appear in the July issue. Watch in this same July issue for an SCPRF meeting report . . . and a big story on the LaPrairie Brick plant in Canada.

Elmer Ligon of Dickey

2471 Attend Pittsburgh ACS Meet

Members hear reports on tunnel kiln operation, engobe application to red brick, quartz inversion. Bradley elected president.

Preston Steele of J. C. Steele with Boyd Miller of Miller Equipment, C. H. McDonald of West Bros. Brick and Neal Mohler of Miller Equip.

Speaker Bull of Spencer told about Brickaid.

L. R. Whittaker of Carolina, with Bob Ferguson of Yankee Hill and Tom Butler Jr. of Elgin - Butler.

Bill Coates, elected vice president, talks with James Bobb with Buddy Prewitt lending an ear.

Among many papers delivered, the Structural Clay Products section of the ACS heard of a successful campaign to triple the output of a tunnel kiln, when the 60th Annual Meeting of the ACS was held in Pittsburgh, April 27-30.

The boosted kiln output was accomplished at the Kelsey-Ferguson Brick Co. plant at East Windsor Hill, Conn., with the meeting report given by Robert Carpenter. (A full story on this work was reported in the July, 1956 issue of BCR—page 44.)

Increased Heat Transfer

Carpenter, who was in charge of the tunnel kiln modifications, reported that the program was based on increasing the rate of heat transfer and extending the heat as far toward the kiln entrance as possible.

The plant is currently using a 17 hour burning cycle and expects further improvement depending on the installation of recirculation fans that will handle air as high as 1300 deg. F.

Use Dutch Ovens

Additional heat had to be added to the kiln with new burners. Recirculated air, Carpenter said, is heated in dutch ovens set on top of the kiln. All of the attention has been directed to the front end of the kiln with no changes being required in the cooling end of the kiln. The latter is despite the fact that brick are drawn in a very hot condition.

Quartz Inversion

In another talk, Gilbert Robinson of Clemson College read a paper on "The Quartz Inversion in Cooling Cycles." In this report, Robinson said that all of the faults in fired brick commonly associated with the quartz content are in many instances closely identified with the manner in which the cooling temperature fluctuated than with the content of silica in the body.

The problems of the glass industry in cooling its products was likened to those of the brick industry; the speaker suggested that some of the problems were identical.

Harmful Cooling and Heating

While the quartz could not be eliminated as a cause of air checking of brick, the effect of alternately cooling and heating a body in the critical temperature of the glassy phase could be shown to have harmful influence on the brick, Robinson noted.

(Continued on page 84)

Charles Taylor, with Ray Pafford and John Isenhour at meeting.

E. A. Williams with Mrs. Isenhour

W. L. Fabianic of Porter with Edward Epstein Jr.

Gil Robinson of Clemson with Sam Ferguson.

Below are Bob Taylor and Paul Johnson, SCPRF.

Below are Charles Rue with Jim Henderson of Robinson.

Stoody Hard-Facing
CARVES MAINTENANCE COSTS
on Pug Mill Knives...

Although Stoody 21 provided highly successful protection (above), Stoody Borod is recommended for extremely abrasive materials. Caution: when rebuilding and hard-facing cast iron knives preheat and hold at dull red heat during welding (about 800° F). Slow cooling, preferably in a furnace, is advised.

Here's how a large mid-western brick plant gets longer parts life, more production with less downtime in pug mill operations.

Pug mill knives are hard-faced with Stoody 21. The hard-facing procedure shown at left, above, protects wearing surfaces, maintains gauge and establishes a profile for fast renewal of hard-metal when necessary.

Normal life of knives without hard-facing is one week. At right, the worn knife has been in operation over 5 weeks! Knives can usually be rebuilt 3 to 5 times before discarding.

Plant operators are reducing downtime and avoiding frequent replacements by maintaining a constant inventory of hard-faced equipment ready for use. For your nearest Stoody dealer who can give you more hard-facing details, consult the "Yellow Pages" of the phone book...or write direct to the company.

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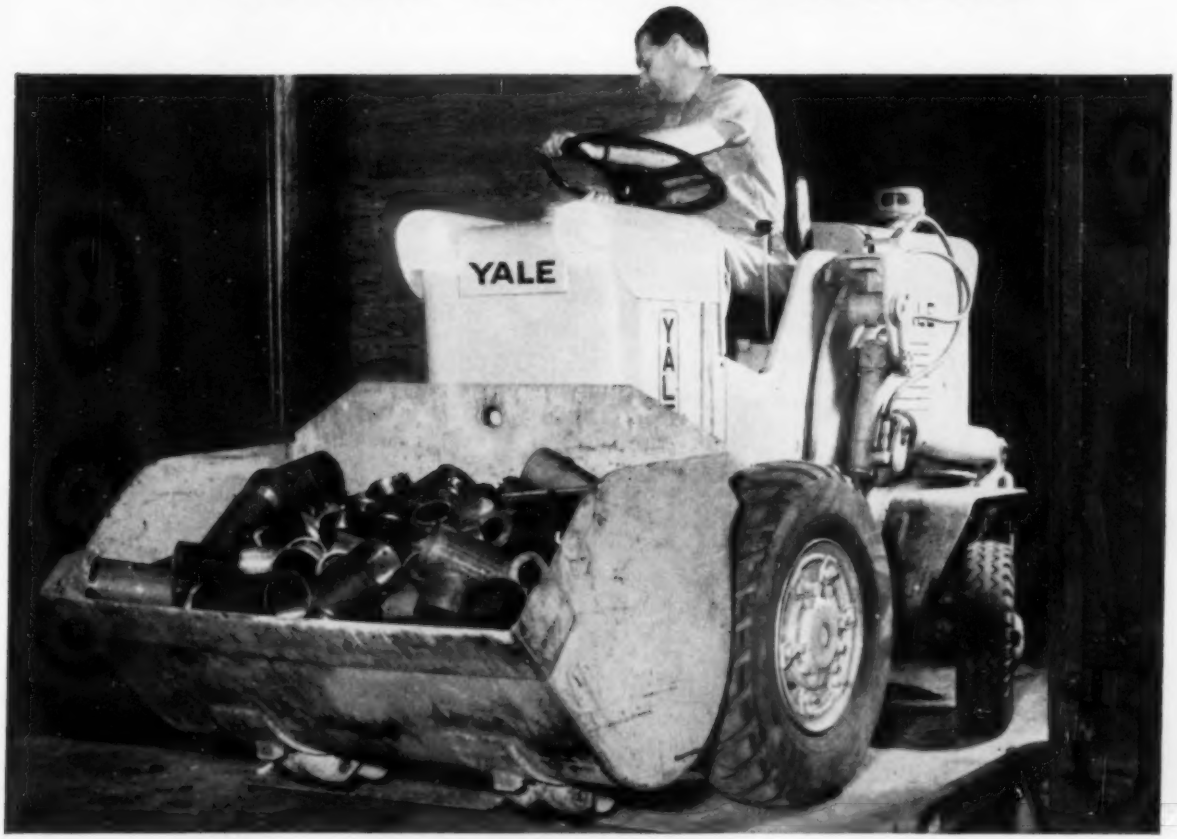
11950 East Slauson Avenue · Whittier, California

NEW YALE INDUSTRIAL TRACTOR SHOVEL



Carries more tonnage every hour

—field tests prove it!

Actual field tests prove the amazing work-capacity of the new Yale Industrial Tractor Shovel. Extra tonnage—extra work—extra duty cycles! Operating acceleration speed is 8 mph in 3.5 seconds. And Yale's exclusive fully automatic Torque Transmission produces quicker, smoother starting, more power under load conditions.

Loader-linkage advantages are unique. Exclusive 45° ground-level tipback provides top loading action, minimum spillage in grade-level position. Exclusive 6′ dumping clearance (highest on any model of similar wheelbase) automatically returns bucket from full dump position to dig position.

Let your operator work with it. He'll like the roomy, clear cockpit—the finger-tip controls—the ease of handling—the fact that there are no gears to shift. He'll especially like Yale's exclusive Safety-Curve Arms—that never rise above the side frame to cause injury. For a demonstration in your plant or further data write The Yale & Towne Manufacturing Co., Philadelphia, Pa., Dept. A-666.

COMPARE THESE YALE FEATURES:

- Exclusive Yale Torque Transmission (fully automatic)
- Exclusive 45° ground-level bucket tipback
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- Exclusive acceleration speed to 8 mph. in 3.5 sec.
- Exclusive sealed brakes
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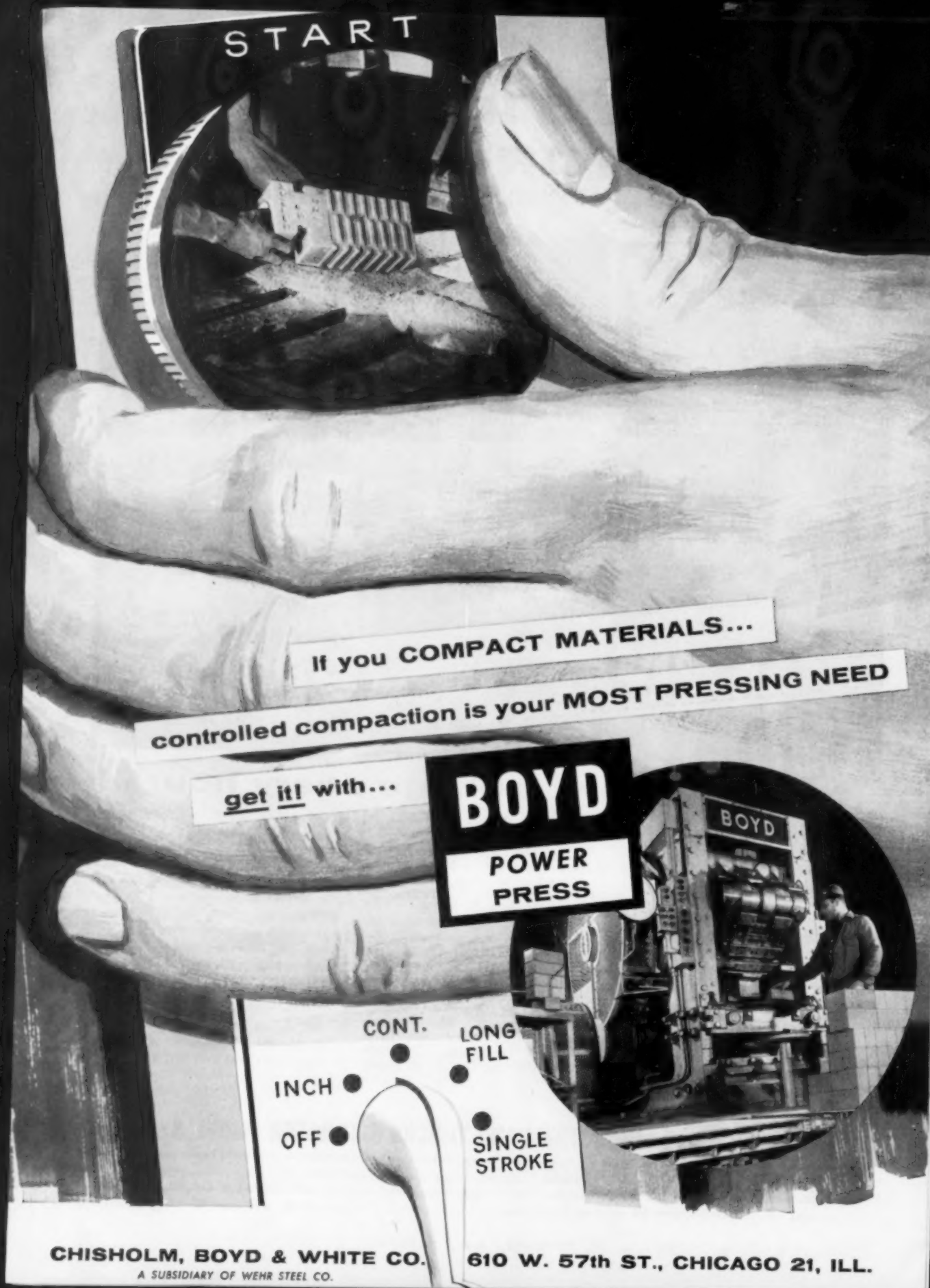
START
If you COMPACT MATERIALS...
controlled compaction is your MOST PRESSING NEED
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Guest speaker, at left, Robert Taylor of SCPRF visits with TRI president Brinckerhoff and Executive Sect'y Avery Newton.

Whitlach of Aetna with Puls of Acme.

TRI Members Hear Taylor of SCPRF Tell of Brick Research, Operation

W. S. Lowe of A. P. Green, Pete Peterson of Valentine, Tom Welfer of Harbison-Walker, and Lin Bettison of Chambers Bros.

George Brush of Harrop, Mark Terman of Babcock & Wilcox, C. B. Kay of Kyanite, George Campbell of Ramtite, and Bill Porter of Globe Brick.

Other reports discuss SUB, Mellon Research; new members admitted, board named.

Jim Brinckerhoff, Babcock & Wilcox Company, president of The Refractories Institute conducted the Annual Spring Membership Meeting held at the Homestead, Hot Springs, Virginia, May 8 and 9.

It was announced that Ken Raugh, Garfield Refractories, will be the chairman for the Operators Meeting next spring. Also, announced were several new members. They were the Pacific Clay Products, Carborundum Co. and Butler Refractories Co. As Associates, T.R.I. has passed on the Ohio Knife Company of Cincinnati, Philadelphia Quartz Company of Philadelphia and A. E. Staley Mfg. Company.

It was reported that the bibliography on refractories is about ready and will be published in the fall. The Membership Roster, too, will be published sometime in the fall. The career brochure which was passed to college students was successful with more than 14,000 copies distributed.

William Lowe of the A. P. Green Fire Brick Co. reported on the college

(Continued on next page)

From left, Ken Raugh of Garfield, W. A. Turner of H. K. Porter and E. W. Valensi of North American.

TRI Counsel Kenny with Tom Montgomery, A. R. Barnett of Green, and J. J. Dugan of Walsh.

The Wives Were Also Present:

program. Some changes will be made this year instead of holding the long session. One suggestion was that separate meetings be held at various ceramic schools, and that the meeting be combined with the Operators Meeting. Final decision in the matter will be made in the fall.

Al Turner, H. K. Porter Co., reported for the Mellon Institute Committee. A. R. Barnett, A. P. Green Fire Brick Co., has taken Plunkett's place on the committee since Plunkett has retired. It was recommended that a 15% increase be made in charges for tests.

W. J. Kenney, General Counsel for T.R.I. reported on the depletion matter. He revealed the recent changes in the statute that the Internal Revenue Department is suggesting. This would give the refractories clays a 15% depletion at the cut-off point which is crushed and ground products. It is essential, he pointed out, that other refractory material should be covered such as silica.

SUB Plan

Thomas Welfer, Harbison-Walker Refractories Co. reported on the supplementary unemployment benefit plan. He said that no payments are made until the unemployed person asks for payment. Not many are aware of that. A problem arose on the compensation to be paid to short time employees. He also pointed out that a problem was involved with employees over retirement age. His entire discussion was a review of how the plan works and the difficulties that it has had in some states as being adopted.

Stuart Phelps of Mellon Institute Refractories Fellowship reported on his year's activities. He revealed the completion of his consistency meter and thermal spalling tests for silica brick. Other research projects completed have been reported in bulletins and other bulletins are scheduled for publication.

Louis Trostel, General Refractories Co. and Chairman of the Research Advisory Committee, told of the research programs that were completed also. He talked about the balling of fire clay and its research, cracking in dry pressing, and the additives which Stuart Phelps used in these projects. He indicated that the increase in 15% on tests will enable the Mellon Fellowship to operate within its budget and will extend the usefulness of the Fellowship, for instance, in measuring thermal conductivity.

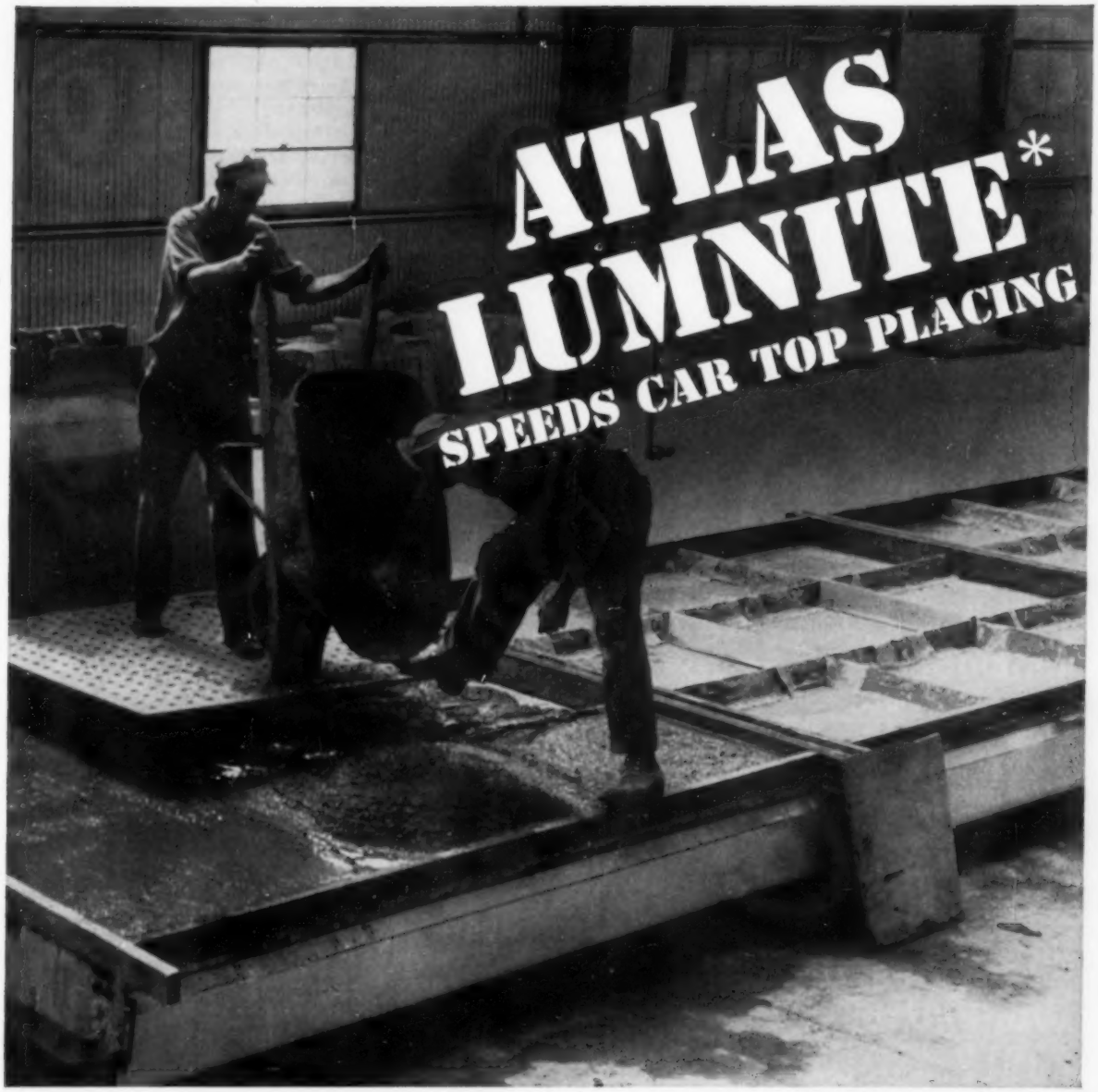
The fire clay brick classification has been revised to include high alumina brick. Basic brick classifications are being investigated. Thermal conductivity of castible refractories has been studied and some recommendations made. Now studies are extending into plastic refractories.

Taylor On Research

Robert Taylor, Structural Clay Products Research Foundation, was asked to speak before this group and tell of how the SCPRF was organized and how it is operated.

He repeated the history of this program. In 1948, Arthur D. Little made recommendations for a research program and recommended that "end use" research be emphasized, however, other research programs were also suggested. Late in 1948 this program was accepted on the basis that

(Continued on page 85)



Car tops being formed with refractory concrete (made with LUMNITE calcium-aluminate cement) at Clay City Pipe Company's plant in Uhrichsville, Ohio. Plant labor, using plant equipment, mixed and placed tops for 5 cars in 4 hours.

. . . refractory concrete tops cost less, last longer

- Refractory concrete tops (made with LUMNITE cement) offer greater resistance to heat and thermal shock.
- They are quickly cast in place (or precast) using plant labor and equipment—concrete reaches service strength in 24 hours.
- Monolithic refractory concrete tops also add to car stability, help reduce wrecks, require little maintenance.

For maximum convenience, use castables made with LUMNITE cement. These are packaged mixtures, ready for use. Simply add water, mix and place. Made and distributed by leading manufacturers of refractories.

Write for the "Lumnite Refractory Concrete Manual," Universal Atlas, 100 Park Avenue, New York 17, N. Y.

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Another paper of interest was that given by Willard Bull, of Spencer Chemical Co., on the results of field tests made by various producers with additives prepared by Spencer.

The additive, Brickaid, was developed to reduce and control black coring of red brick, and has resulted in gratifying increases of capacity in tunnel kiln operations where firing time was determined by time needed to remove black coring agents, Bull said.

Design and application of an engobe to a normal red body was the subject of a paper by Robert W. Richards, of Richards Brick Co., Edwardsville, Ill.

Engobe Application

Richards estimated that engobes could be applied to a red face brick in colors that would blend with the natural color of the body, and minimize chips, for a total cost of $2-$5 per M, depending on the color desired.

The cost of spray equipment and mixing devices as well as the development cost of the engobes was estimated by the speaker as being about $20,000. The cost per thousand included the amortization of the capital expense.

The Refractories Div. heard a series of papers on the application of refractory products to the aluminum smelting industry, with six papers read.

Other papers at the meeting covered phases of the refractory industry in connection with its work in the nuclear fields.

Bradley Elected

Among other business transacted, Richard Bradley was elected ACS president; Oscar B. Burch, president-elect; W. W. Coates Jr., vice-president; Herbert Insley and Harry Davis, elected vice-presidents.

The following men were elected trustees: E. E. Howe, enamel division; F. J. Von Tury, design division; Rolland Roup, electronics division.

New fellows of the Society include Kenneth Baab, Wayne Fay, Louis Doney, Stewart Lang, S. Burton Clark, Fulton Flick, Loran O'Bannon, William Hogenson, James Willis, Forrest Nelson, Milton Berns, William Smothers, Arthur Metzger, Warden Gaskins, Glidden Parker, Carl Schaefer, Ernest Levin, William Crandall, Charles DeVoe, Robert B. Taylor, J. Gordon Phillips, Henry Fisher, Leslie Alt and Ernest Snyder.

A. P. Green VP, Bradley, Heads ACS

Richard S. Bradley, who was elected the 60th president of The American Ceramic Society on April 28, is vice-president in charge of research and engineering of the A. P. Green Fire Brick Co., of Mexico, Mo.

This is the same company for which he went to work while a student in ceramic engineering at the University of Illinois and upon his graduation in 1925 joined on a full time basis. Three years later he was named director of research and in 1949 was placed in charge of the newly created Division of Research and Engineering.

Bradley has been a member of The American Ceramic Society for 35 years, his membership dating back to 1923 when he joined as a student. Throughout the years he has been active in Society affairs, a list of the

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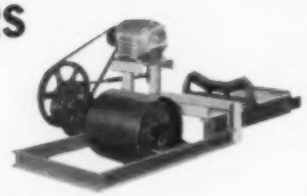

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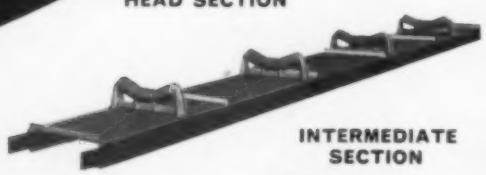

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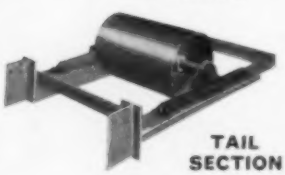

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offices he has held and the committees he has served reading like an organization chart of the Society.

He has been especially active in the Refractories Division, having served as trustee for three years, chairman, vice-chairman, secretary, program chairman, membership chairman, and in numerous other capacities. He is a member of the Founders Group of the National Institute of Ceramic Engineers, has served as the Institute's secretary and on committees. He is also active in the St. Louis Section of the Society, his most recent service there being as counselor.

For the national organization he has been a trustee, vice-president in 1955-56, a member of the Executive Committee in 1954-55 and again in 1957-58, chairman of the Committee on Sections during the current year, and president-elect.

TRI MEET Continued

250 thousand dollars a year be spent on research, and that no shorter period than 5 years be contracted for the rate of ½ of 1% on the gross sales of the members, which meant a minimum pledge of one and a quarter million dollars, over a five year period.

The program worked out so well that the million and a quarter was collected in three years.

Robert Taylor was chosen as director of the program. He operates with an executive committee and a board of management.

Outside Research

The first operation of the research program was to contract research projects to such organizations as Armour Institute, Howard Fisher Associates and the Siegert Company. By 1952 a building was rented where some of the research could be car- 1954 a Research Center was built and ried on by the Foundation itself. In 30 people were the makeup of this staff.

Later on, dues were changed to ½ of 1% up to two million dollars, ⅓ of 1% from two to six million dollars and 1/10th of 1% over six million dollars gross sales.

The Research Foundation operates closely with the field staffs of the SCPI organization. Although SCPI is a separate organization, the liaison between the two is very close.

Roy S. Arrandale
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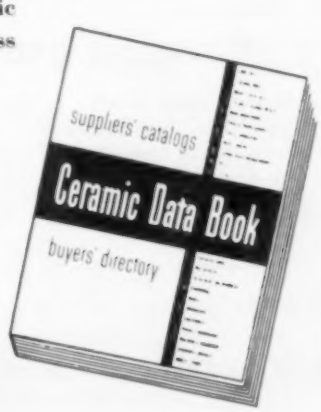

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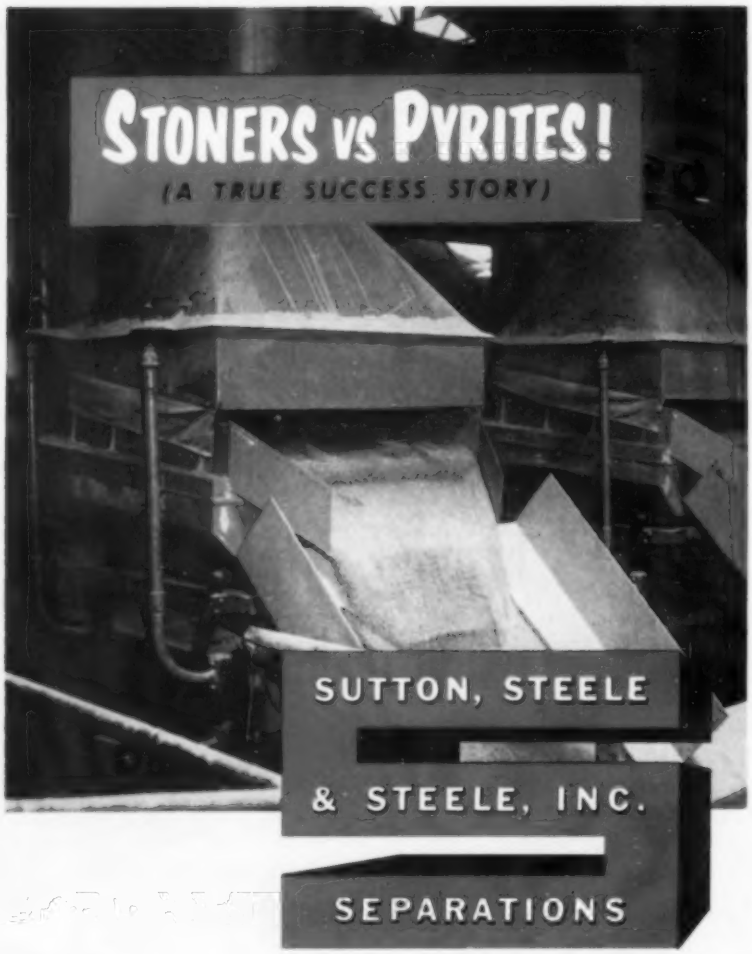

Concordia, Kansas: Two Sutton-Steele Model S-40-60A Stoners are performing an outstanding job in the removal of iron pyrite nodules from raw clay tailings. While Sutton-Steele Stoners have been used for years in virtually all process industries, this is the first specific application in the structural clay products field. Operating continuously at a throughput capacity of more than twelve tons per hour, *the Stoners are removing up to 90% of pyrite* contained in the clay passing through dry pans and over #5 mesh screens. This type of dry, two-way ("lights" from "heavies") separation represents a typical use of *standard* Sutton-Steele equipment (no special engineering). Don't give up on a salvaging or separating problem until we have a crack at it. Chances are, we'll find the right answer!

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STAHLTON Continued

another bed, ready for the new lay-up the following morning.

When both sides of a bed have been fully laid up, a set of heating covers is placed over the bed. These covers are provided with electric heating elements, and are themselves made in sections not too large for easy handling.

Two sets of these covers are generally provided for a 4-bed plant, the idea being that the covers are always in use. Covers are removed from an adjacent bed which has just finished drying and curing, and placed on the next bed with the new lay up. The covers are easily handled from one bed to the other by use of a special portable lifting device. Each cover has a plug connection with an overhead power supply main.

This use of artificial heating can increase production per bed by up to 80% of that normally achieved by natural drying. Steam heating can be used as an alternative.

Unloading

The wires are released from the bed by means of the screw jacks in the anchor blocks at the anchor end of the bed. The wood spacers at the plank ends are removed, and the wires cut at each plank end with a torch. The wires are never cut while still tight.

The individual planks are lifted off the deck and placed on hand-pushed trucks or carts brought to position alongside the bed. These trucks are pushed from the relatively restricted position between the beds towards and out through the tension end of the beds and building.

Once in the yard the planks are picked up and handled as a unit load by a fork truck or an overhead crane, transported to and stacked into storage. The planks are individually marked as required for identification at the building site.

Deck boards and strippers are replaced into the overhead racks, the dirty ones being first taken outside the building and washed in a special cleaning pit before returning to the racks.

Work Schedule Sequence

The foregoing description has not emphasized how much is achieved by

close timing and integration of the operations.

In practice, wires are placed and tightened in row No. 1 even as row No. 2 is being placed. Again, strippers and deck boards are already placed at one end of a layer while concrete spreading and vibrating is still proceeding or finishing at the other.

It has been found that 4 beds enable the most efficient work schedule to be maintained. All work is beautifully dovetailed in a good Stahlton factory, and there is never any waiting by any one operator for another to finish a particular operation.

Operations are as standardized as the material components used. The only variation in the whole plant processes occurs in the length of the planks made, in the size and number of wires per plank, and to a lesser degree in the amount of tension applied to the wires. The bulk of the workers are not in any way affected by these variations.

Koerner Named To Head Expanded C.B&W Research

As part of an expanded research and development program "in the field of compaction of granular media," Chisholm, Boyd & White Co., Chicago, have announced the appointment of Dan E. Koerner as Director of Research and Development.

The announcement was made by R. A. Ebersole, C.B&W president. Koerner has been active for the past ten years in design and development of mechanical and electrical components for heavy machinery.

H-W Net Income Declines in Quarter

Net income of Harbison-Walker Refractories Co., Pittsburgh, for the first quarter of 1958 fell to $1.5 million, or 19¢ a common share. This compares with 1957 figures of $3.3 million or $1.11 per share.

Sales totaled $19 million as compared to the 1957 quarter figures of $26.6 million.

LETTERS—Continued

there are disappearing, since Europe started using the "many-cored" brick.

As an engineer for heavy ceramics, I had the opportunity to develop and manufacture the new oversize brick, 2.5 to 6 times the size of those seen here, using a new pattern of coring. The small-size brick used in Europe are the grandfathers of these new brick. In many cases, no machinery change was necessary to put these in production.

The new product is saving brick layers working time and mortar with many advantages in labor and time savings.

Tests for mechanical requirements or load-bearing have been fully satisfying. I am now working with American manufacturers to interest them in this product development.

Joseph Skaletz
659 Armitage Ave.
Chicago, Ill.

Ed. Note: The writer of this letter, operator in the past of a plant in Germany, included the above drawing of the product, with relative size shown in comparison with the hand.

We're sure Skaletz will be glad to correspond with any manufacturers interested in learning more about this product shape.

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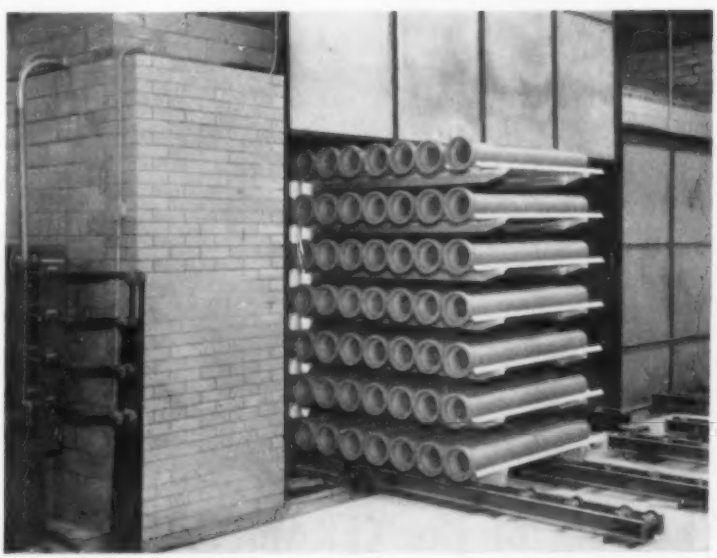
Engineering for the Ceramic Industries



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European Ceramists To Meet on Sept. 15-20

The International Ceramic Congress, including meetings of the European ceramic associations, will be held in Wiesbaden, Germany, on Sept. 14 to 20.

Among the other events, visits to ceramic plants will be part of the program. The Refractories section on Sept. 16 will include a visit to the Niederdollendorf plant of Didier-Werke, A.G., and on the 17th to the Chamotte-Industrie, Hagenburger-Schwalb A.G.

The stoneware, or pipe, group will visit Cremer & Breuer, on the 16th, and Deutsche Steinzeugwarenfabrik for Kanalisation und chemische Industrie A.G.

The structural clay products tour will visit the plant of the firm K. Wenzel, Ziegelwerke and Berlichingen of the firm Gebr. Lohlein Garnberg, on the 16th. The following day, the schedule includes the plant Malsch of the firm Ziegelwerke Emil Bott GmbH near Heidelberg and the plant Rauenberg of the firm Ziegelwerke Emil Bott GmbH, Rauenberg; plus a visit to Heidelberg Castle and park.

Lunches and dinners, plus a film, will also be a part of the occasion.

Complete information, plus registration blanks, are available on request from B&CR in a limited amount. Several copies of the program are available to those interested.

The Talk of the CERAMICS Industry!

More and more companies are automating the feeding and handling of clays, coloring, and additives with the Omega Model 37-20 Belt Gravimetric—the floodproof, foolproof feeder engineered specifically for ceramic applications.

See how Model 37-20 — with built-in non-flood Rotolock, scientific hopper design, and positive bulk density control — can simplify and systematize your dry materials feeding operations. Ask for Bulletin 35-N62. **Omega Machine Co., 407 Harris Ave., Providence 1, Rhode Island.**

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Mountain Brick Plans To Double Output

Doubling of the manufacturing capacity of Mountain Brick & Supply Co., near Ft. Collins, Colo., was approved recently by company officials.

Construction of a 30′ kiln is expected to begin at once, with completion set for this summer, according to T. J. Orrender, general manager, with cost estimated at $25,000.

Present output is about 250,000 brick a year, using two periodics. Other work done by the plant has included a $50,000 modernization, mostly in erection of a 40 x 150′ manufacturing and drying room. Present employment of 14 will rise to about 20 when the new kiln begins operation.

H. E. Scott is company president. Plans eventually call for a million brick per year output.

Name Change for Porter Refractory Products

Low alumina silica roof brick manufactured at the Christy Works, St. Louis, and Canon City, Colo., works has been renamed by Refractories Div., H. K. Porter Co., Inc.

Formerly marked HKP, St. Louis products will now be branded LC-R and Canon City products will be called LCC-R. First quality silica made in Colorado will be marked LC-C.

No changes have been made in the product itself.

Mex-R-Co Officers Re-elected

Re-elected at the annual meeting of stockholders of Mexico Refractories Co. were J. B. Arthur, chairman of the board; W. Basil Leach, president; C. A. Smith, executive vice president; J. H. Kruson, R. A. Hitchins, E. C. Tinsley, C. H. Bachmann, Philip Geib and Louis Hosbein.

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Samples obtained from depths up to 100 feet with the all new

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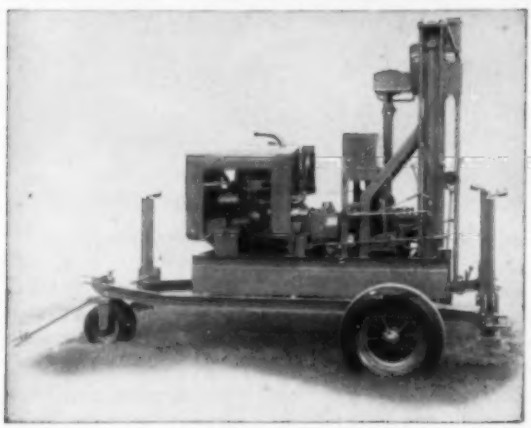

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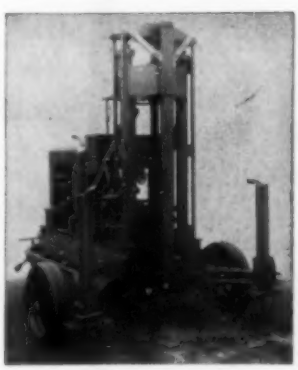

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Champion Apprentice Named In Cincinnati Meet

An overall view of the apprentice competition.

Winner Jenniges is shown at work in Cincinnati.

Forty-two state champion bricklayer apprentices from all parts of the country competed for the title of Champion Bricklayer Apprentice in the 10th Annual Bricklayer Apprentice Competition held in Cincinnati on April 25-30.

First prize winner this year was Gerard Jenniges of St. Paul, Minn., Local #1. Second place was won by Larry Curran, of Cleveland; third by Jerry L. Green of Houston; fourth by Mike Kristich of Chicago.

The annual competition is sponsored by the BMPIU, with the intent of focusing attention on the Union's effort to supply a steady stream of journeymen bricklayers for the construction industry.

Cash prizes for first to fourth place, in order, were $500, $300, $200, and $100. The champ also received the Belden trophy and $100 in cash from SCPI, plus a plaque from the MCAA.

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5 South Wabash Avenue

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FIRST CLASS
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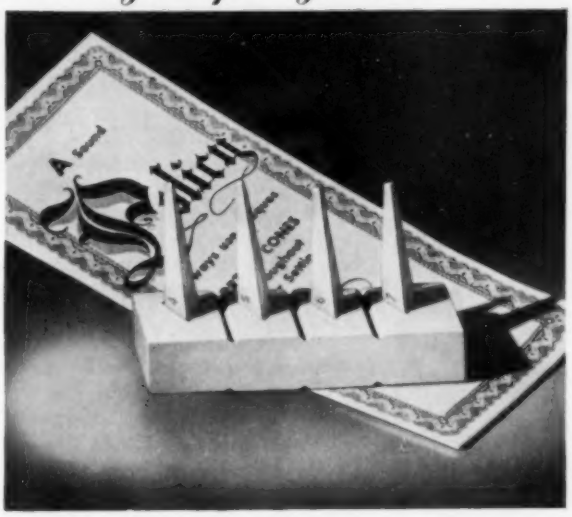

ORTON CONES'

three point protection

gives you more uniformly fired ware

1 Plaques of Orton Cones placed throughout the setting so they may be observed through the peep holes provide a visual check on the progress of the ware during the critical high fire stage.

2 While cones do not measure temperature, exactly, they *do* indicate the end point of firing and provide an accurate measure of the maturity of the ware.

3 An examination of the cones after firing indicates the distribution of "heat work" throughout the setting.

There is an Orton cone series for every application. The large cone series is made in numbers 022 to 42 inclusive (except Nos. 21, 22, 24 and 25, but does include Nos. 31½ and 32½). P.C.E. Cones for refractory testing as well as for firing, are available in the same numbers as the large cone series but starting with cone No. 12. Small, or "junior" cones, are made in numbers 022 to 12, inclusive.

No matter what your operation, there are Orton Cones to meet your need.

Foreign Sales Agent: **International Division, The Ferro Corporation, 4150 East 56th Street, Cleveland, Ohio, or the Foundation**

the firi(e)ing insurance of thousands

The Edward **ORTON** Jr. Ceramic
FOUNDATION
1445 Summit Street • Columbus 1, Ohio
AXminster 9-8023

Shrewd. . . that man from Indiana*

*Webster defines "shrewd" as . . . able or clever in practical affairs; astute; sharp-witted; sagacious; keen; displaying shrewdness or sagacity. That's the man from Indiana! Especially the brick plant operator. He doesn't jump to conclusions . . . he thinks things out carefully . . . and he's convinced of the savings gained in TIME and LABOR through the use of Materials Handling Equipment. That's why the "man from Indiana" uses . . .

BICKERSTAFF BRICK FORKS

AUTOMATIC MODELS
Actuated by weight of load. 4x3 lifts minimum of 300 pounds.

HYDRAULIC MODELS
Gives full gripping pressure regardless of load weight.

- Experience proves labor to load and unload kiln reduced from 72 to 12 man hours.
- Kiln turnover increased 25%.
- Loads directly from kiln to truck, freight car or inventory without rehandling.

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COLUMBUS, GEORGIA

REPRESENTATIVES THROUGHOUT THE U. S. AND CANADA
West Coast Representatives:
WALTER C. STOLL & SONS
5028 Alhambra Ave., Los Angeles 32, California

Columbia To Distribute for Clay City

Executives of Columbia Brick, Portland, Oreg., and Builders Brick, Seattle, signed a special agreement appointing Columbia the exclusive Clay City product distributor in that area. Left to right above are Gene Salveson, Builders sales manager; Albert Olbrich, Columbia sales manager; Dick Houlahan, Builders president; Franz Olbrich, Columbia vice president.

4 BIG REASONS

serve industry best

1 • ELIMINATE BLINDING

2 • INCREASE TONNAGE

3 • BUILD GREATER PROFITS

4 • SPEED PRODUCTION

Hanco ELECTRIC SCREEN HEATERS

PIONEERS IN ELECTRIC SCREEN HEATING

F. R. HANNON & SONS

Hanco

1605 Waynesburg Rd. S.E., Canton 7, Ohio

Plant Tours Help Good Will For Washington

A seldom used promotional asset which can pay surprising dividends in the form of publicity, general public good will, and even actual sales are "plant tours," according to Washington, (D. C.) Brick Co.

Washington Brick has been making regular use of plant tours in two of its three yards in the nation's capital. Tours are regularly scheduled in both the suburban brickyard where school children, social groups, and businessmen's organizations are the "tourists" and in the aggregate block plant, in still another Washington suburb where engineers, construction men, members of home financing organizations, etc., are most likely to make up the roster.

Planned Tours

In most instances, the scheduled tours, conducted by a plant executive or a yard superintendent, have lasted from two to three hours, depending upon the amount of technical information which is dispensed.

When a group of FHA executives, for example, toured the aggregate block plant, Washington put full emphasis on the care and quality control which goes into lightweight aggregate, as a public relations measure bound to be remembered by FHA loan executives whenever construction loans are the subject.

One of the longest tours on record came when a group of engineers from Germany was taken through the block plant, displaying much interest in some of the technological advancements which had been developed by Washington Brick were shown.

At the brick plant in suburban Washington, which operates one of the few rotary kilns in the country, school children and businessmen's groups make up most of the sporadic tours, usually originally set up on a request basis and mapped out for the best understanding of the produciton program by visitors.

Refreshments Served

During most tours, refreshments are served and each visitor gets a specially mimeographed folder prepared by Washington Brick Company, which gives a history of the firm, an idea of the magnitude of its operations in all fields, with the company's compliments.

Answers thousands of questions on properties and uses of engineering materials!

Just Published . . .

ENGINEERING MATERIALS HANDBOOK

1952 pages
6 x 9
678 illus.
$21.50

Editor-in-Chief: CHARLES L. MANTELL

HERE ARE ALMOST 2000 PAGES OF ANSWERS to both routine and unusual problems that crop up whenever engineering materials are being selected. Technical tables—design information—structural characteristics—tabular data—a wealth of useful and specific facts—are all made quickly available. Comprehensive and authoritative, this handbook considers materials from the viewpoint of engineering structures, machinery, and equipment. It gathers together in one volume the information needed by **everyone** concerned with design, structure, and serviceability. An 83-page index pinpoints the facts you want in an instant! **Prepared by over 150 Specialists; Editor-in-Chief: Charles L. Mantell, Chairman, Dept. of Chemical Engineering, Newark College of Engineering.**

Instant, authoritative reference —

- Covers all common and not-so-common materials
- Gives complete data on important design properties
- Emphasizes fabricated or commercially available forms
- Allows quick comparisons among alternate materials
- Gives specific use recommendations
- Permits accurate prediction of behavior.

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Cut Down Firing Problems
That Cause Rejects . . . Lost Man Hours . . . Costly Shutdown

OPERATING THE TUNNEL KILN

(A "How-To-Fix-It" Handbook)

by J. T. Robson, Ph.D.
Allied Engineering Div. Ferro Corp.

Here, stripped of all theory, are the practical "cures" . . . handily indexed . . . for firing difficulties encountered in tunnel kiln operation.

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SUPERMATIC MASONRY SAW

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and
HI-LO CONTROL WHEEL

NO ADJUSTMENTS TO MAKE
No Need to Turn Off Motor to Raise or Lower Cutting Head . . Ready to Cut at Any Height From 0" to 17". . . No Levers or Knobs to Pull. No Gears, No Slides or Unnecessary Parts to Wear Out!

YOU NAME IT THE SAW— THE JOB— THE MATERIAL—

. . . Clipper will name the Best Premium Quality Blade . . . Break-Resistant, Abrasive or Diamond, to give you the Fastest Cut . . . at the Lowest Cost . . . with the Greatest Ease . . . Anytime . . . Anywhere! Mail the coupon or call your Clipper Factory Trained Representative for Same Day Service!

Clipper also builds the famous **"Select-A-Notch"** Masonry Saw—the Saw that one man can adjust from his cutting position. priced from **$335**

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PACK-HAULER PETE SAYS...

YOU TOO CAN INCREASE PROFITS

WITH A

"PACK-HAULER"

(a hydraulically operated brick and block handling body)

"PACK-HAULER" means...

- Cut per thousand delivery costs
- Smaller truck fleets necessary
- Savings on insurance, upkeep, licenses and labor
- Leveled task-load at the kiln
- No strapping or pallets needed
- Split load delivery

AND MANY MORE ADVANTAGES... FOR COMPLETE DETAILS, OR FOR A FREE "PACK-HAULER" DEMONSTRATION AT NO OBLIGATION, PHONE US COLLECT.

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INCORPORATED

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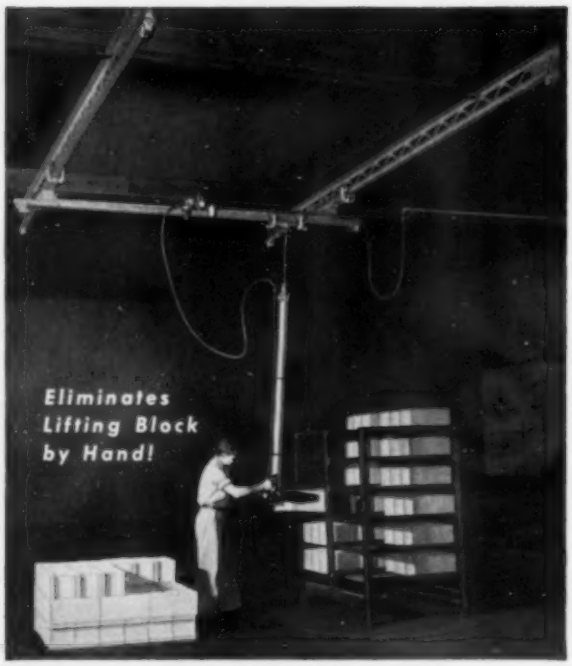
MARTINSVILLE, VIRGINIA



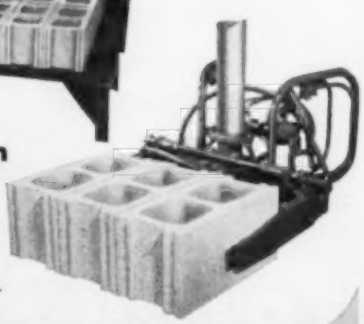
BESSER Bridge Crane BLOCK CUBER

Now — you can eliminate the old-fashioned method of lifting block . . . one at a time . . . by hand. The Besser Bridge Crane Block Cuber builds a cube for convenient fork lift truck transportation to storage yard. Operator merely guides the easy, rolling crane which carries the block to the correct position for making a neat, square cube. Pays for itself through labor savings in a short time. Simplifies inventory count. Permits neat stockpiling. Saves yard space.

Write for Bulletin No. 103.

Cubing platform

Open grating of welded all-steel construction. Self-cleaning, with guide for perfect alignment of block. Note how easily 3 blocks are tipped over, in a single motion for first course.



Combination clamp

Simplifies handling of block or brick from rack to cube. Convenient control levers eliminate finger fatigue... make it easy to remove block from highest and lowest deck.

BESSER COMPANY

Complete Equipment for Concrete Block Plants

ALPENA, MICHIGAN, U.S.A.

A7-125

Sayre & Fisher Develops 18-Brick Package

A new eighteen-brick package is now being made experimentally, and shipped, by the Brick Div., Sayre & Fisher Brick Co., Sayreville, N. J. The package, also known as the Single Void Brick Unit, was developed by Earl F. Baumer, Pat. Pend., Serial No. 691075.

The brick unit is a simply made package containing eighteen brick, using one steel strap, and weighing 81 lbs. This weight is based on a standard size 4½ lb. brick. The unit is reported to be adaptable to any brick size in normal use and would, naturally, vary in weight according to the brick used.

Warehouse Stack

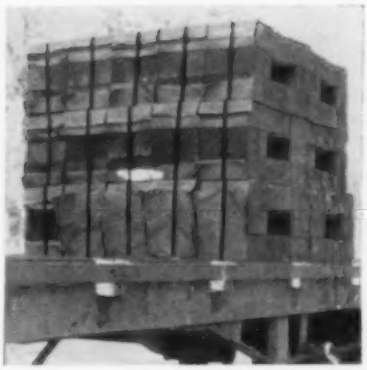
Five packages, containing 90 brick, are removed with one tine of the crane or fork from the off-bearing conveyor and placed two-wide and three high to become the warehouse stack, containing 540 brick, weighing 2430 lbs., Bauer reports.

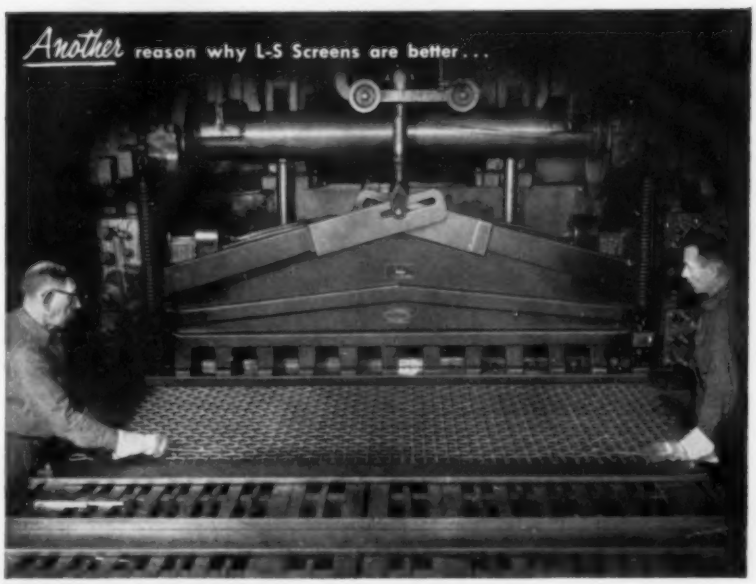
The unit may be loaded or unloaded by lift truck, crane, mechanized truck, manual dolly or other means. Shipping from the warehouse is said to be accomplished under such favorable conditions as to permit one man with a mechanized lift to continue loading in an emergency during hours when the plant is closed.

Helps Man on Site

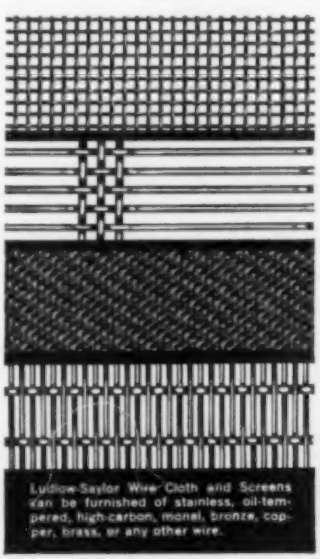
One the job site, handling of such a small package is easily done by one man. In the illustration herewith, a 540 brick warehouse stack is being shown during shipment, via trailer truck, to a junior high school in Union, N. J.

The eighteen brick pack has been assembled and strapped manually and shipped on a small scale. A pilot plant is in the process of being established at Sayre & Fisher, with completion having been scheduled for early spring.





LUDLOW-SAYLOR shears — does not burn — wire ends to insure accurate dimensions and to prevent distortion


Ludlow-Saylor Wire Cloth and Screens can be furnished of stainless, oil-tempered, high-carbon, monel, bronze, copper, brass, or any other wire.

Burning off uneven wire ends, after screens are woven, is common industry practice . . . but not for Ludlow-Saylor! After being trued up on a leveling machine, they are sharply sheared to insure absolute accuracy and to prevent any distortion of the precision-woven openings.

This extra 2-man operation is typical of the many reasons why L-S Screens wear longer —stand up better under toughest conditions—and retain their rigid dimensional stability far longer than ordinary screens. *Order L-S Screens next time . . . you pay no more, but get much more!*

Immediate Shipment of most weaves and sizes

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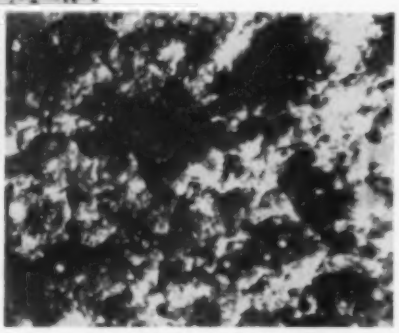
GLAZED WITH 100% SALT
BADLY CRAZED

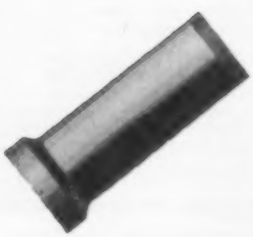
Here's proof of what a borate-salt mixture can do for your ware!



GLAZED WITH 10% BORATE–90% SALT

for a better glaze at less cost...

RASORITE® Sodium Borate Concentrates



Improve your salt glaze, lower your costs—it's easy with RASORITE! This product is cheaper than either Borax or Boric Acid, yet it gives equally fine results. Use RASORITE to make your glazes more durable, more impervious to liquids, more uniformly free of crazing. Get the benefits of a borate-salt mixture—in lowered fuel costs, increased production and profits. Write today for details and technical data sheets.

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United States Borax & Chemical Corporation

PACIFIC COAST BORAX COMPANY DIVISION

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Color Shows Profit For Wallapai Brick

Exceptionally attractive, light colors in pink and white, fired from a Caliche clay formation discovered in the firm's own 35th Street plant, has proven exceptionally profitable through 1957 at Wallapai Brick and Clay Co., Phoenix, Arizona, reports Frank and Charles Harvey, owners.

Experimentally firing with a rough grind, Wallapai Brick and Clay has produced several thousand extremely light "pinks" in recent months, all of which were immediately sold in the commercial market, although there has been, as yet, little or no residential use.

The early firing indicated conclusively that because of soft white spots in the brick, it will be necessary to institute a much finer grind, Frank Harvey indicated. Several stacks of the pink brick are on display at Wallapai's south Phoenix yards, and have resulted, as expected, in many additional orders.

The new light colors closely follow the introduction of "Canyon Rose," Wallapai Brick's first experimental firing of color brick. Tan and rose, currently in use in scores of commercial building projects in the Arizona city, has become one of the "best sellers" which the long-established Arizona yard has developed.

The Wallapai clay pits, located only a few miles away, will produce an adequate supply of Caliche formation clay to last for many years, Frank Harvey announced.

Opening of a new Houston warehouse and office at 5638 Harvey Wilson Dr. has been announced by *Ludlow-Saylor Wire Cloth Co.*, St. Louis.

CONTROL GREEN SCUM
with MINERVA FLUORSPAR

Small amounts of Minerva Ground Fluorspar effectively control Vanadium Efflorescence, when added to the drypan, in making buff or white face brick.

Control Of Pastel Shades
Is Simplified

For Glazed Brick, Minerva Fluorspar Is A *Must* To Prevent Scumming Under The Glaze.

WRITE NOW FOR SAMPLES AND FURTHER INFORMATION

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THE PRIESTER TRUCK CRANE
(PATENTED)

16 units of 500 bricks each unloaded by driver alone, merely pushing buttons.

Unloads off either side. Puts loads on sidewalk where they belong. Requires less than half the unloading space that other devices need. Handles brick or block unpalleted or palleted or packaged. Not necessary to move truck. Unloads one, two or all units at one place! No chipping or breaking bottom bricks or blocks. Gentle handling. For full details, ask for Bulletin TC53.

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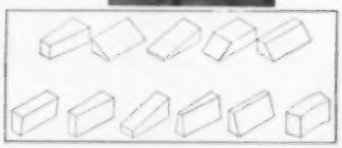
Middletown, N. Y.

NEW GREEN BRICK CUTTER for SHAPES

★ WELL BALANCED TOGGLE ACTION
★ SMOOTH CLEAN CUTS
★ ACCURATE CUTS
★ QUICK-CHANGE
★ SAFE



CUT YOUR SHAPES FROM VACUUM EXTRUDED CLOTS →

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MANUFACTURER OF BRICK MAKING EQUIPMENT

BRICK & TILE DIES
MOLD BOXES & DIES FOR
DRY-PRESS RE-PRESS
TEXTURE DEVICES
SPECIAL PURPOSE EQUIPMENT

ARCHITECTS WANT COLOR!

Modern architectural design calls for more and more colored glaze brick. With a modest investment, you can profit from this growing trend. By facing your common brick with colorful glaze, you can get premium prices for it.

Drakenfeld offers you practical help in solving color application problems. Our experienced technologists and the most modern color research and production facilities are ready to serve you. We invite your inquiry.

CALL ON

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Tufhorse KANT-RIP GLOVES HAND PADS MITTENS

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PROTECT WORKERS' HANDS!

HEAVY SPLIT-COWHIDE GLOVE NO. G-9, TRIPLE STITCHED.
$16.50 PER DOZEN PAIRS.

Avoid costly injuries to the hands of your workers by giving them the protection they need—Tufhorse gloves, hand pads or mittens. Made of the finest cowhide, they are flexible and comfortable to wear.

ORDER SAMPLE PAIRS AT "PER-DOZEN" PRICES

Please send me samples of
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THE BEST IN SCREENING

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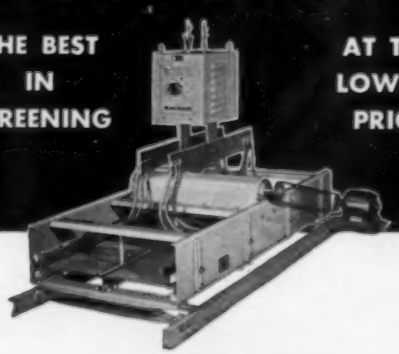

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SURPRISINGLY LOW IN COST

Be sure to get the facts regarding the new improved Universal Screens and Unilec Heating! Just ask for catalog #150.

UNIVERSAL VIBRATING SCREEN CO.
Racine, Wisconsin
Quality Screens Since 1919

Golden Saves Money With Propane Conversion

Many advantages are accruing to Golden Brick Company, Golden, Colorado, with the conversion of all of the company's fork lift trucks to propane gas, according to Toni Vitale, general superintendent.

The conversion was accomplished at the shops of Denver Brick & Pipe Company, in nearby Denver, at an approximate cost of $180 per unit. Tanks are mounted on a steel strap saddle behind the operator's seat on each fork lift unit, where they are completely accessible for charging, and carburetor conversion was accomplished with a minimum amount of reworking of the fuel system.

In addition to the economy which propane at 12¢ a gallon represents over gasoline at 28¢ and 29¢ per gallon, Golden Brick anticipates a substantial saving in maintenance. During a few months of use it has been noticeable that the carbon problems with valves, pistons, heads, etc., has almost disappeared, and that the fork lift engines operate more evenly with a smoother flow of power. Thus, out-of-service time will be sharply cut, as will be the costs of engine repairs.

Another factor which has been of considerable value in employee morale is the elimination of carbon monoxide and noxious fumes inside Denver Brick & Pipe Company's 14 beehive kilns. Producing far less gases due to better scavenging of the cylinders, the propane-fueled fork lifts in continuous use inside the kilns are producing far fewer headaches and other ailments traceable to such gases, Vitale pointed out.

Along with the fuel conversion, the fork lift fleet has been equipped with a custom-engineered brick fork, designed by Denver Brick & Pipe personnel, which applies even, balanced power at all four sides of a brick hack to eliminate spillage and other damage. Operating on an extremely heavy schedule, with every piece of operating equipment at premium value, Golden Brick reports itself thoroughly pleased with the results of this conversion.

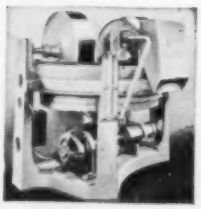
Call FERNHOLTZ First!
Fernholtz Machinery Co., 8468 Melrose Pl., L.A. 46

OL 3-2360

ELIMINATE PRODUCTION PROBLEMS BEFORE THEY OCCUR!

ADVANCED shuttle kiln installed at the Interlocking Roof Tile & Brick Co., Niles, Calif. Firing 7500 brick or 5000 four inch drain tile with ADVANCED 850 Cu. Ft. "movable envelope" kiln. Automatic Firing—button control. Load stationary. No worries—no wrecks.

Clearfield—Mixers and Pans—capacities from ½ cubic foot laboratory sizes to 60 tons per hour, high speed fast grinding, rough grinding, medium grinding, fine grinding, also mixers, ask about AMW (adjustable muller wheel grinding). Ask for Bulletin C-5-68.



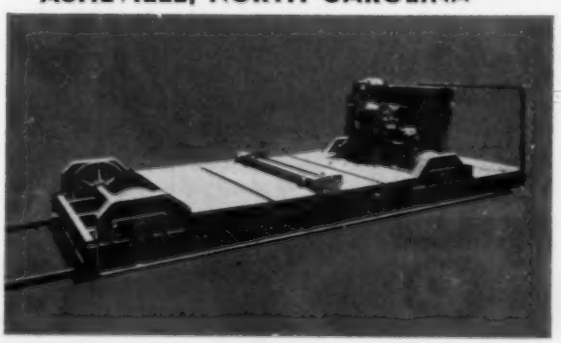
International—Kiln Coolers, Fans, Duct Boosters, and Exhausters. Sizes for circulating, cooling, exhausting, all voltages. Ask for Bulletin 103-A-68. For drying pipe, hollow tile, brick.

FERNHOLTZ MACHINERY CO., 8468 Melrose Place, Los Angeles 46, California

ENGINEERING ASSOCIATES, INC.
P. O. BOX 5284 ASHEVILLE, NORTH CAROLINA

The EA Hydraulic Transfer Car has brought response that has amazed even us. The smooth drive has proven itself not only in red brick plants, but also in refractories, sewer plants. New plants have been designed and built around the use of a pusher on the car and existing plants have been improved based on same. Why not look into this?

Represented By: Forrest A. Paschal
Box 289, Siler City, N. C.



"Our ROCKFACER Paid for Itself 3 Times in the First 9 Months..."

says
FENTON SMITH
★
TEAGUE BRICK & TILE CO.
★
TEAGUE, TEXAS

"... We bought our ROCKFACER less than 9 months ago ... already we've rockfaced and sold 2-million bricks ... most satisfactory way to dispose of off-color and off-shade bricks that would be difficult to sell otherwise ..."

ROCKFACER

Converts 2000 "CULLS" per hour into Number 1 PREMIUM Rock-Face Bricks!

SEND SAMPLES OF YOUR BRICK

Put through the ROCK-FACER, they come out with a straight-chipped edge for laying neat course quickly. YOU judge profit potential. Prices and specifications on request.

Other Users:

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HENDERSON CLAY PRODUCTS CO. (2 MACHINES) HENDERSON, TEXAS

MARTINSVILLE BRICK CO. MARTINSVILLE, INDIANA

NATCO CORPORATION NELSONVILLE, OHIO

POSTON BRICK & CONCRETE PRODUCTS CO. SPRINGFIELD, ILLINOIS

RELIANCE CLAY PRODUCTS CO. (2 MACHINES) DALLAS, TEXAS

TAYLOR CLAY PRODUCTS INC. SALISBURY, N. C.

ROCKFACER CO.
503 Hickory Tree Rd., Mesquite, Texas
P. O. Box 547 — Phone ATlantic 5-5297

Saves 72 hours in kiln cooling

MECO 48-B
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Users report that Meco Koolers often save 72 hours or more, compared to natural kiln cooling. This provides faster kiln turnover and increases production without cost of extra kilns.

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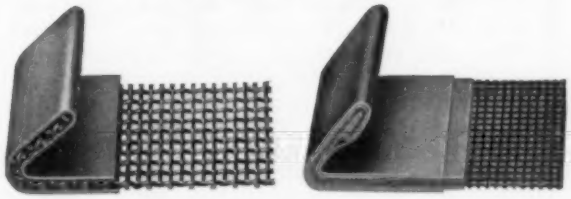

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August 6, 1957

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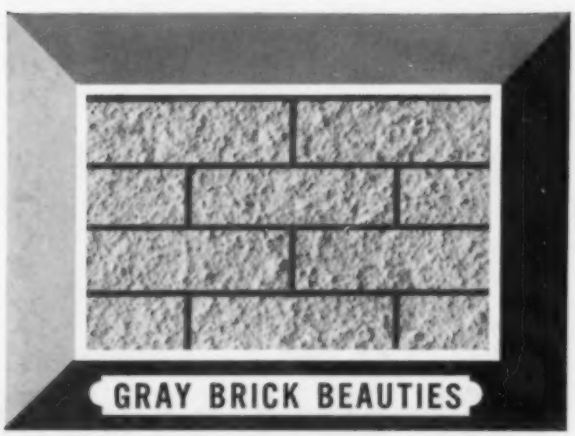

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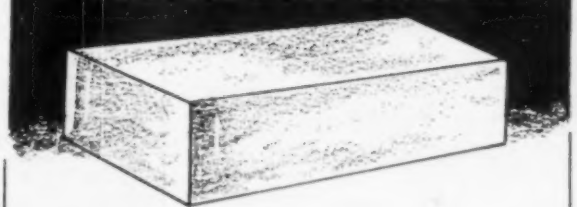

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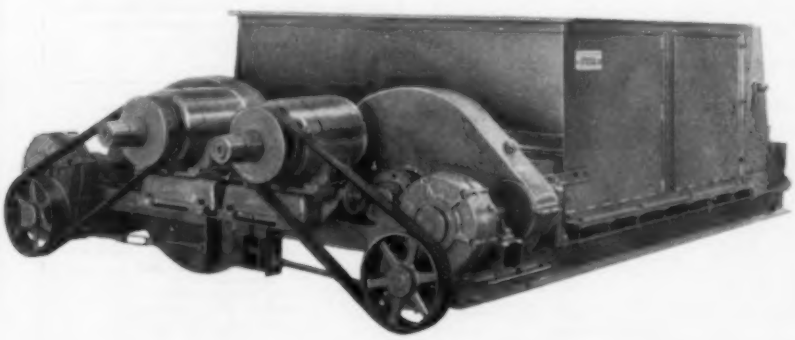

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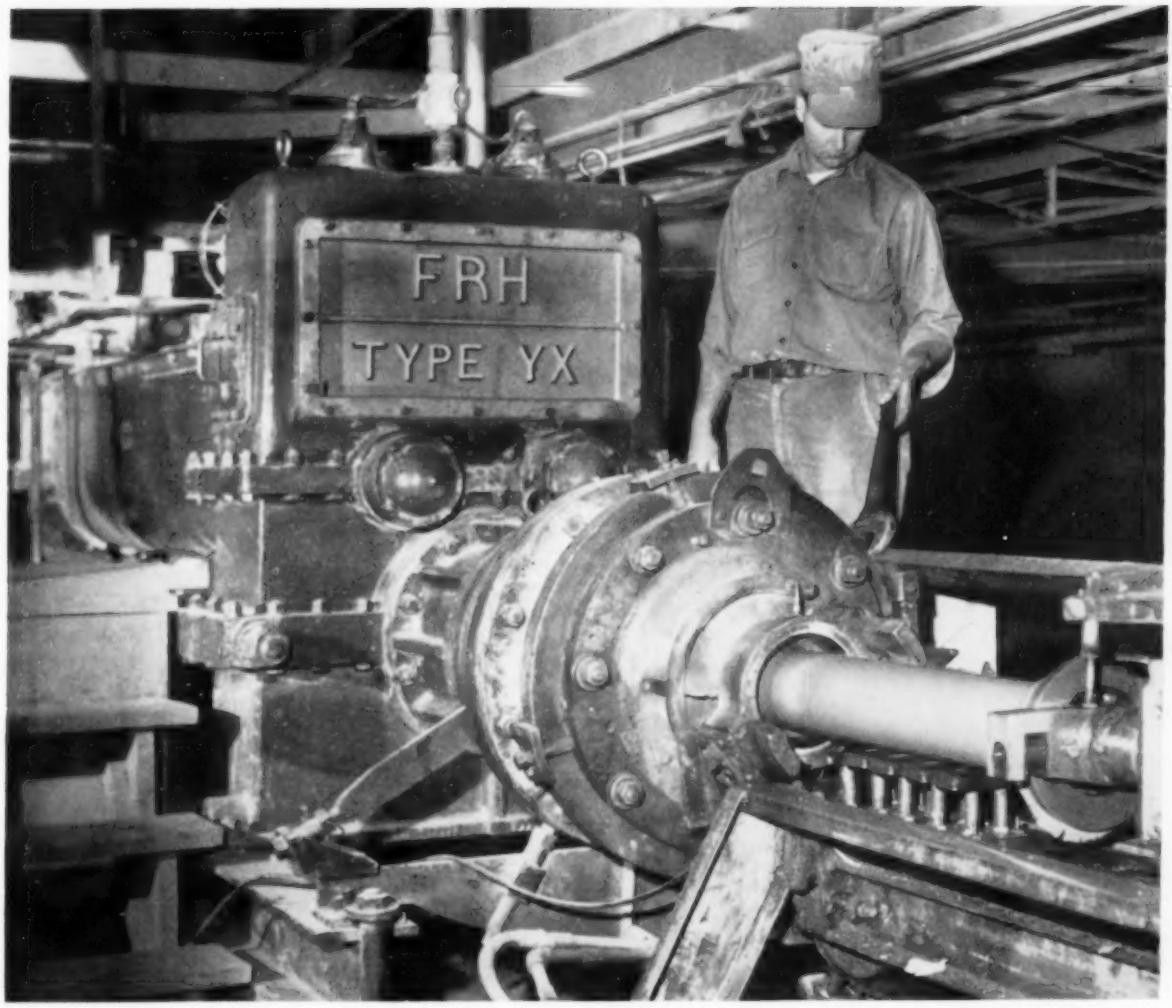
• The Best in Clay Machinery Since 1889 •



"F-R-H Extrusion Machine produces longer lengths, better quality pipe"

Reports Texas Vitrified Pipe Co., Mineral Wells, Texas

"More economical firing of vitrified sewer pipe, plus better in-plant handling and finishing of the product, are some of the chief advantages provided by our Fate-Root-Heath de-airing extrusion machine," states Mr. Luther Waddy, Chief Engineer at Texas Vitrified Pipe Co., Mineral Wells, Texas.

"For the past 24 months, we have used an F-R-H Model YX ceramic machine to pug and extrude 3½ ft. lengths of 6" sewer pipe and 4 ft. lengths of 4" pipe horizontally. Longer lengths, plus 'uniform' extrusions every time, cut firing and handling costs—reduce handling and jointing problems for our customers."

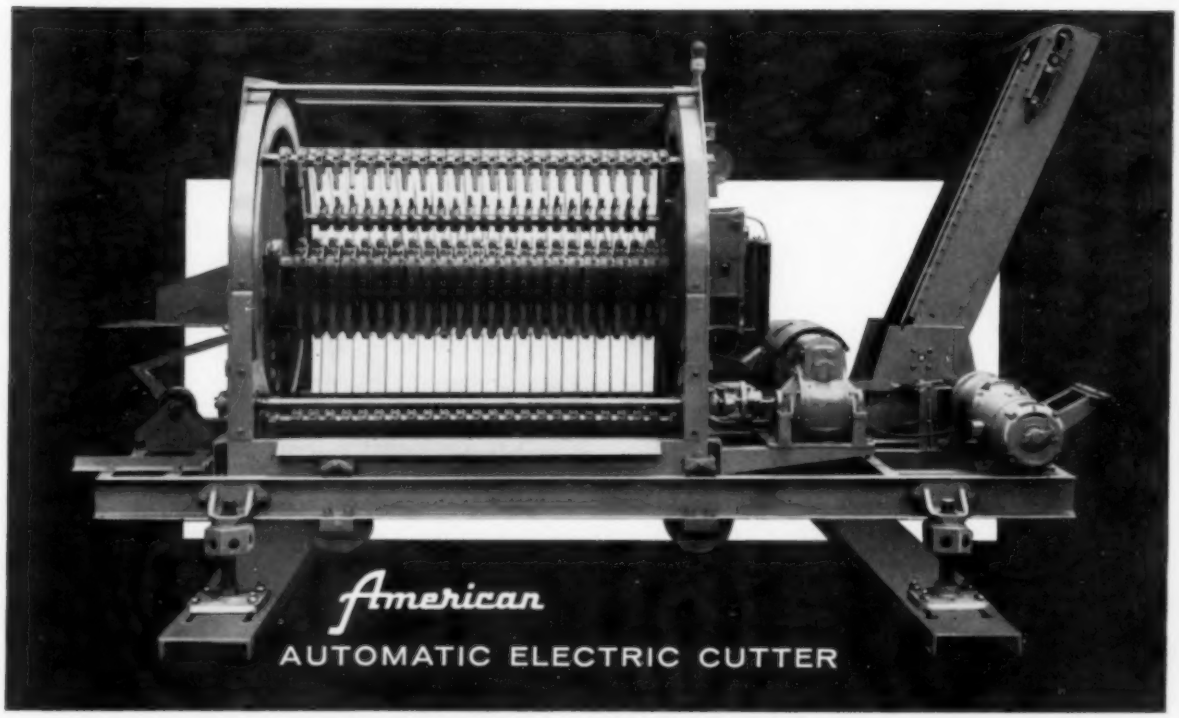
Find out today how F-R-H de-airing extrusion machines can increase the production of ceramic products, improve product quality, reduce operating costs for *you*. Simply send a brief outline of your operations to The Fate-Root-Heath Company, Dept. B1, Plymouth, Ohio.

F-R-H

CERAMIC MACHINERY

FOR 100% OPERATING EFFICIENCY — ORDER GENUINE F-R-H REPLACEMENT PARTS DIRECTLY FROM THE FACTORY

BIG CAPACITY BRICK PRODUCTION



CUTS UP TO 18,000 BRICKS PER HOUR

Every motion of the "American" No. 858 Automatic Electric Cutter is electrically controlled to give precision accuracy of any brick or tile cut up to 14"x14". This electric control is unfailing . . . there is no chance for error.

The "American" No. 858 is a complete unit . . . there are no extras to buy. Wire holders and platens are adjusted easily for any size requirement, and the base adjusts up or down to suit any cross section of clay. The hourly capacity of the "American" No. 858 Electric Cutter is from 3,000 to 18,000 bricks . . . 23 standard bricks per cut. This is truly the best cutter for "SCR" brick. Other features include: anti-friction bearings throughout . . . magnetic clay bar clamp for perfect cut . . . hinged measuring frame can be lifted to permit die or front change . . . no valves or gears.

Investigate the advantages of the modern, fully automatic "American" No. 858 Electric Cutter . . . it's designed to give you efficient, dependable service for years.

American CLAY MACHINERY

A Division of HUBER-WARCO COMPANY
Marion, Ohio, U.S.A.

Plants in Marion and Bucyrus, Ohio
Cable Address: HUBARCO

OVER A CENTURY OF EXPERIENCE IN THE MANUFACTURE OF CLAY MACHINERY